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CORRESPONDENCE.

SOMEBODY said that Oliver Cromwell took rather the title of Protector than that of King, because there were some bounds to the power of the latter, but nobody knew the limits of the former. So a distinction is made by France in the case of the Society Islands: they are under her "protectorate." "The offer was made to Great Britain to place these islands under her protection." This phraseology means something. It is not applied indiscriminately. New Zealand is not said to be under the protection of Great Britain. Can it be that it is used with reference to President Monroe's declaration, warning the powers of Europe to keep aloof from the American continent? It may be well for us to consider *how near* to the United States such protection may safely come.

It is melancholy to see the peaceful and prosperous community of Otaheite—so delightful to the readers of Captain Cook, and so interesting as a successful missionary field—destroyed by the rude and cruel hands of *civilized* and *Christian* men. The French commander reports that his vessel fired grape shot "on the houses all along the coast." Attempts were made, in the presence of the chiefs, to carry off their wives, and for resisting, the husbands were shot. The imprison-

ment and exile of the British consul, Mr. Pritchard, has been characterized by the British ministry, in Parliament, as an "outrage upon the British flag." Lord Wellington has not applied such strong language to it; but enough has been said to render it difficult for England to be satisfied without ample apologies and reparation; and by the last arrival it would seem that the French government would hardly be able, in the face of the strong clamor for war with England, to make such apologies. It may perhaps ultimately be settled, at the expense of Egypt, by England's assuming, with consent of France, the protection of that important communication with India.

Should war break out between England and France, we shall have additional cause for remorseful regret, that we have so ill employed the long period of peace and prosperity which we have enjoyed. We ought to have consolidated ourselves by the establishment of such a course of policy as would have given us a currency based upon a solid and permanent system;—a stable settlement of the public lands, and an equitable adjustment of the question of revenue. These great matters have been thrown into the wind, by politicians of all kinds, to be made use of in the struggle for power.

We hope that the king of the French and Lord

Wellington may, by their joint efforts, be able to postpone the great war which seems to be impending. But we do not hope that it can for many years longer be warded off.

There are indications that England will force a commercial intercourse with Japan and with Borneo.

The article on the Right of Visit shows that British vessels are not allowed to board French ships, unless specially authorized to do so,—not even so far as to ascertain whether the vessel be really French or no. This is interesting to us, as it touches upon an important and difficult question.

The lines to an Idiot Girl are not as smooth or terse as modern verse usually is, but there are some passages rising to sublimity.

More than twenty years ago we saw Mr. Waterton, on his way to South America, and everything from him has attracted us greatly. May he live to give a long Autobiography!

We recommend to one of the writers for Hunt's Merchant's Magazine, an article giving the history of the Post Office in the United States. The report which we print in this number astonishes us, by showing how very lately the Post Office was established in England. The last 200 years have wonderfully advanced society—and what with rail-roads, steam and electricity, the velocity of the movement is continually increasing.

The horrible account of a death on one of the islands of Lake Superior, we place on record; expecting to see, in twenty years more, a wonderful contrast to the desolate loneliness it pictures.

There are 14,000 subscribers to the Art Union, at five dollars a year each. Many of them are in the United States.

We copy the following from the Paris correspondent of the National Intelligencer:

Cheap compact reprints of foreign works, like those of New York, have been undertaken in the Spanish capital. The second volume of the *Weekly Literary Omnibus*, published this month, consists of a good translation of Washington Irving's Tales of the Alhambra. The price by subscription is about a third of the French copy.

The recent Bulletin of the Geographical Society of Paris—a neat pamphlet of 384 pages—consists mainly of a good sketch of the physical geography of Texas, by Dr. Ashbel Smith, the distinguished Chargé d'Affaires of the Republic in Paris, and a notice or analysis of Mr. Prescott's Mexico by Mr. Roux de Rochelle, formerly Minister of France at Washington, and now editor of the Bulletin. The highest praise is bestowed on Mr. Prescott's labors. This skilful abstract ends with an emphatic tribute to their beauty and durable value. Mr. Smith estimates the superficies of Texas at more than three hundred thousand square miles.

The first article of the last *Revue* is an account of Birmingham and the adjacent manufacturing districts: the author extracts the worst features

from the Sanitary Reports; but he concludes that though millions of the people protest against the present British institutions, and cry for universal suffrage, "England is not yet on the eve of a revolution." The article on the Spanish drama of this day is from personal observation. The most eminent and popular writer of tragedy in Spain is a beautiful lady, twenty-three years of age, born at Havana, Doña Gertrudes Gomez de Avallanada, celebrated besides for miscellaneous poetry and prose.

No savages of Oceania—none in their wildest state, in Africa—ever displayed more hideous traits of character or perpetrated worse characteristic enormities than did the blacks from the country at the Cape Haytien earthquake in 1842, and the Port au Prince conflagration in 1843. Let the reviewer's authentic narrative be seriously meditated. He imputes much of the recent troubles to French intrigues and plans, and protests against the reestablishment of French sway; it would, however, seem well that so fine an island should be a scene of civilized and productive power, in lieu of the fell reverse: but the Haytiens would prove more difficult foes or intractable subjects than are the Arabs of Algeria. Last winter I asked a French Envoy returned from Hayti, "Would you not be glad to have the island again?" "Not," he answered at once, "with those devils to manage." When General Herard succeeded Boyer, the philanthropists, according to the Review, cried, We have at length a negro Solon; we shall have a real black republic: "all parties in England indulged the sweet delusion—not a few eminent individuals expressed an eager desire for the rights of citizenship in Hayti." Herard, as an exile, in turn met Boyer at Jamaica; and the new successor is reported to be dying of poison. The reviewer affirms that Boyer carried off forty thousand pounds sterling: the ex-President represented himself here as reduced to a small competency: his return to Jamaica was, we may presume, political as well as financial. The French suppose that the independence of the Spanish portion of the island will be maintained. The Review observes of the Haytiens: "If they are let alone, and if they themselves be content to fight out their own quarrels on their own soil, they may, at length, weary of bloodshed, settle down into some rational form of government." We do not see this consummation even in Spanish America, where it might be expected with more reason. Toussaint alone, of all the Haytien chiefs since the first expulsion of the French, commands any respect; his death, or rather his murder, in a damp Swiss dungeon, where he was left to expire of cold and hunger, is an indelible blot on Napoleon's escutcheon.

The London Athenæum of the 20th instant concedes some columns and some merit to a work entitled "High Life in New York, by Jonathan Slick." A doubt is expressed whether it be American handicraft, and this, in part, because scenes very disparaging or scurrilous with regard to President Tyler are introduced. "It is difficult," says the Athenæum, "to fancy an American holding up this needless and silly satire of himself and his country." Here is a lesson which I have quoted in consequence of the quantity of vilification, of no possible service, in many American productions, which, when we are abroad, our patriotism and our taste utterly condemn.

From the Edinburgh Review.

### THE MARTYRS OF SCIENCE.

*The Martyrs of Science; or the Lives of Galileo, Tycho Brahé, and Kepler*, by SIR DAVID BREWSTER, K.H., D.C.L. 12mo. London: 1841.

IF the distinguished author of this unpretending little volume had undertaken to write the history of the origin of Physical Astronomy, he could not have thrown his narrative into a more convenient and interesting form, than by writing the lives of Galileo, Tycho Brahé, and Kepler. These three names occupy by far the most conspicuous place in the annals of Astronomy, between those of Copernicus and Newton. By explaining the phenomena of the celestial motions, on the hypothesis of the immobility of the sun and the twofold motion of the earth, Copernicus made the first step towards the true theory of the universe; but he did not discard the eccentrics and epicycles of the ancient faith; and the universally received dogma of antiquity—uniform motion in circular orbits—remained undisturbed. In order to proceed a step beyond the point at which Copernicus had arrived, observations of greater precision, and more distinct ideas respecting the laws of motion, were necessary. Tycho Brahé furnished the observations. Kepler, with infinite labor and sagacity, traced out their consequences, and proved from them that the planetary orbits are not circles but ellipses; and that the motions are not uniform, though regulated by a law remarkable for its simplicity and beauty. Galileo directed the telescope to the heavens; fortified the Copernican doctrine with new truths; and, by the discovery of the laws of motion, prepared the way for the dynamical theories of Newton. In effecting this advance from formal to physical astronomy, no other individual contributed in any remarkable degree; hence the history of their labors includes that of the science itself, during one of the most interesting periods of its progress.

But if the three individuals just named are pre-eminently distinguished for their services to Astronomy, they are not less remarkable for their intellectual characters, and the incidents of their personal histories. They lived in an age of unusual intellectual activity, when Europe was rousing itself from the torpor of centuries, and gradually acquiring the characteristics of our own times. First in chronological order, comes Tycho—the prototype of an age in a state of transition from ignorance and barbarism to knowledge and refinement—devoting himself with equal zeal to the pursuits of astronomy and astrology, chemistry and alchemy, and in whose character, religion and superstition, enlarged views and abject credulity, were strangely blended. Next we have Kepler, also an astrologer, but while practising the art, railing at its vanity and worthlessness;—indulging in the wildest reveries respecting the laws of the planetary motions, but rigidly subjecting all his

fancies to the test of calculation; refuting his own hypotheses, when he found them inconsistent with observation, with as much complacency as others employ in establishing the most important theories; speculating on the nature of attraction so as almost to anticipate Newton, yet stating at the same time his belief, that the solid globe of the earth is an enormous animal, and that the tides are produced by the spouting out of water through its gills! Lastly, we have the accomplished and courtly Galileo; a controversialist, a rhetorician, a man of the world; treating with sarcasm and ridicule the physical dogmas countenanced by the church, yet living on terms of intimate friendship with its dignitaries; establishing the true system of the world with an overwhelming force of argument, and recanting his doctrines in submission to ecclesiastical authority. Characters thus marked would afford, under any circumstances, interesting subjects for biographical sketches; but, in the present case, the interest is greatly increased by the accidents of life and position. The persecution of Galileo by the Catholic church, for maintaining doctrines which are now regarded as the most certain truths of science; the injuries, real or imaginary, which compelled Tycho to abandon his observatory, and exile himself from his country; the privations and miseries of Kepler, whose fate it was to be one day engaged in working out the laws of the universe, and the next in calculating nativities to procure bread for his children; the incidents, in short, which entitle them to be regarded as martyrs of science—have procured for them the sympathies of the world, and given them a notoriety altogether independent of their scientific discoveries.

It is to the personal, rather than the scientific history of these three individuals, that Sir David Brewster has chiefly directed the attention of his readers in the present brief but interesting memoirs; for though their services to science are distinctly set forth, and on the whole accurately appreciated, they are not dwelt upon at such length, or with so much detail, as to interfere with the popular character of the work. He does not profess to have had access to any new sources of information, or to have placed the already known facts in a new point of view; he has undertaken no laborious researches for the purpose of settling controverted points in history, or detecting minute errors or omissions in the accounts of previous biographers. In fact, the field had already been so diligently gleaned, as to leave but small hopes of success in any attempt at novelty. The work derives its interest from the vivid portraiture it places before us of the characters of men whose labors occupy a large space in the history of science, and whose endeavors to enlighten the world were attended with so many personal sacrifices. It is written in an agreeable style; it abounds with traits of good feeling and generous sympathy; and, what may be regarded as of importance in a



popular work, it represents science and its pursuits under an attractive and dignified aspect.

The life of Galileo, whom Sir David Brewster places at the head of his martyrs, has been given by his numerous biographers with great minuteness of detail. The materials for the scientific portion are of course collected from his various writings and literary correspondence; the anecdotes and personal traits rest chiefly on the authority of Viviani and Gherardini, the former of whom was one of his pupils, and revered his memory with a species of idolatry. Until recently, there was no good account of his life and discoveries in English; but the want was ably supplied by the elaborate, though somewhat discursive treatise, in the *Library of Useful Knowledge*; (1829;) a work which, it is but justice to say, has afforded our author considerable facilities in preparing the present memoir. The recent historical work of Libri\* has an account of Galileo which is very valuable from its fulness and research, and the care which has been taken to quote the original authorities for the various statements and anecdotes recorded; but unfortunately the author is a partisan, whose zeal to magnify his hero causes him to lose sight of all fairness and moderation in speaking of the characters and conduct of those to whom he was opposed.

Galileo Galilei, born at Pisa in 1564, was descended from a patrician, though decayed family, some of whose members had filled high civic offices in Florence. He was originally destined for commerce; but his studious disposition and promising talents led his father Vincenzo Galilei to entertain visions of success in a liberal profession; and, at the age of seventeen, he was sent to the university of Pisa to study medicine. His taste for geometry is said to have been developed by accidentally overhearing a lesson given by the Abbé Ricci to his pupils, the pages of the Grand Duke of Tuscany. Ricci happened to be a friend of Vincenzo Galilei; and on becoming acquainted with the circumstance, and the progress already made by the young aspirant, admitted him to his course, and encouraged him to persevere. The study of Euclid was followed by that of Archimedes; and, after some ineffectual attempts on the part of his father to recall him to his professional studies, he was allowed to follow the bent of his genius. But Vincenzo, being burdened with a numerous family, was unable to maintain his son at Pisa; he applied for a bursary, and was disappointed; and Galileo was compelled to leave the university without taking his Doctor's degree.

Galileo's first essay in science was a treatise on the hydrostatical balance. This production fell into the hands of Guido Ubaldi, who forthwith conceived a friendship for the young author, and procured for him the appointment of lecturer on mathematics at Pisa, with a salary of sixty crowns. In

this office he soon made himself conspicuous for the freedom and boldness of his attacks on the mechanical doctrines of Aristotle, whereby he excited the suspicions, and provoked the hatred, of a strong party in the university. In 1592 he was appointed by the republic of Venice, again on the recommendation of Ubaldi, to the professorship of mathematics in Padua, with a salary of 180 florins. At that time, it was the custom (as it had been in the middle ages) to engage professors for a term of years. Galileo's appointment was for six years; but when the first period of his engagement had expired, he was reelected for another period of six years, with an increased salary of 320 florins; and in 1606, he was a third time appointed, and his salary raised to 520 florins. His popularity by this time had become so great, that his audience could not be accommodated in the spacious lecture-rooms, "and he was frequently obliged to adjourn to the open air."

In 1609, Galileo, from some obscure hints, found out the construction of the telescope. The instrument excited intense curiosity at Venice; and he presented one to the senate, "who acknowledged the present by a mandate, conferring on him for life his professorship at Padua, and generously raising his salary from 520 to 1000 florins." In the following year he was induced, by offers from Cosmo, Grand Duke of Tuscany, to return to his native state; and he took up his residence at Florence, in the capacity of mathematician of the Grand Duke, with a salary of 1000 florins, and with no official duty excepting that—which we may suppose would not press hard upon his leisure—of occasionally lecturing to foreign princes. This appointment Galileo continued to hold during the remainder of his life, enjoying the favor first of Cosmo, and afterwards of his successor, Ferdinand II., both of whom treated him with distinction; and used their influence with the court of Rome to shield him from the persecutions which were raised against him by the churchmen, and the partisans of the Aristotelian philosophy.

Being thus placed in a situation of independence, and in possession of uninterrupted leisure, Galileo devoted himself with ardor to the study of philosophy; and it must be admitted, that if there be others to whom physical science is indebted for more profound investigations, and researches of greater difficulty, there is, perhaps, no one whose writings have more contributed to its general progress, or whose name is associated with a greater number of brilliant discoveries.

Galileo's astronomical discoveries were the natural, it may be said the necessary, consequences of the invention of the telescope. With respect to the instrument itself, it is not easy to pronounce with certainty on the exact degree of merit he can claim in the invention. The received story is, that while at Venice, in 1609, he heard accidentally of an instrument having been constructed in Holland, which possessed the property of causing dis-

\* *Histoire des Sciences Mathématiques en Italie*. Tom. iv., 1841.



tant objects to appear nearer to the observer; that on reflecting on the means by which this effect could be produced, he found, after a night's consideration, the explanation in the principle of refraction; and that by applying two spectacle glasses of a particular kind to a leaden tube, he was immediately in possession of a telescope which magnified three times. According to this account Galileo, was a reinventor of the telescope. He himself claimed no other merit than that of divining the construction and improving the instrument. He affirms that he had never seen any of the Dutch telescopes; and although, as remarked by Sir David Brewster, there is no reason to doubt his assertion, it appears from various evidence that more than one telescope had previously been brought from Holland to Italy; whence it has been conceived to be quite possible that, without having actually seen the instrument, he may have received such information with respect to its construction, as would render the discovery of the principle not altogether independent. But whether his merit in the reinvention of the telescope be great or small, he is entitled, beyond all question, to the honor of first applying it to the examination of the heavens; and displaying to the astonished gaze of mankind, new worlds and wonders, of the existence of which, till that time, no one had formed a conception.

The invention of the telescope was followed, almost immediately, by a crowd of astronomical discoveries, which, though, from our familiarity with them at the present day, they cease to be regarded with wonder, could not fail, on their first announcement, to excite very great admiration and astonishment. The first object he examined was the moon, whose rugged and irregular surface, presenting so many points of resemblance to our own earth, supplied him with arguments against the Aristotelian doctrine of the perfection, absolute smoothness, and incorruptible essence of the heavenly bodies; of which he was not slow to take advantage. He next observed and pointed out the remarkable difference between the telescopic appearances of the planets and fixed stars; and the innumerable multitude of small stars that become visible in the milky way, the pleiades, and other nebulae and clusters. But, of all his telescopic discoveries, that which was regarded as the most astonishing and incredible, (for their existence was denied, and cause shown why they could not possibly exist,) was the satellites of Jupiter. Four small planets revolving about a central body, and presenting so palpable and striking an analogy to the primary planets revolving about the sun, furnished an argument in favor of the Copernican theory, to which even the most bigoted followers of Aristotle could scarcely withhold their assent. The ring of Saturn also attracted his notice; but, in this case he mistook the nature of the phenomena, and supposed the planet to be triple. He remarked the horned appearance of Venus, and thereby removed a difficulty which had occurred to

Copernicus himself, who perceived that, if his theory were true, the inferior planets ought to have phases like the moon. His discovery of the spots on the sun has occasioned much controversy; having been claimed by Fabricius, Scheiner, and our countryman Harriott. Galileo's claim to priority seems now generally admitted; and he deduced from the phenomena the important conclusion, that the sun revolves on its axis in a period of about twenty-eight days.

Greatly as these discoveries have contributed to the fame of Galileo, it cannot be said that they occupied a large portion of his time—having been all published within three years after he was in possession of the telescope. Viewing them with relation to the present state of knowledge, their intrinsic merit is not very great. They are nothing beyond what an ordinary observer, with a tolerably good telescope, would be expected to make out in the course of a few evenings; excepting, perhaps, the phenomena of the solar spots, and the motions of Jupiter's satellites, which require time for their development. After the invention of the telescope, they imply no great merit; and could not long have escaped observation, although Galileo had never lived. In fact, with the exception of the phases of Venus, and the triple appearance of Saturn, they were all claimed by other observers even in his own lifetime. But, in order to appreciate them correctly, we must go back to the period at which they were made; and consider them with reference to the ideas universally entertained in that age. In this light, their importance assumes a very different character; and it will appear that to Galileo must be conceded the honor, not only of having made an immense addition to the existing knowledge of the heavens, but of having prepared men's minds for the reception of the true theory of the universe, by beating down and overthrowing the prejudices by which they had been kept enthralled for so many generations.

The researches of Galileo, in some of the other departments of natural philosophy, were of more importance than his telescopic discoveries. Since the days of Archimedes, no advance had been made in the theory of mechanics. In determining the law of the acceleration of falling bodies, and thereby laying the foundation of dynamics, Galileo gave it an immense extension. While yet a student at Pisa, he remarked the extremely important fact of the isochronism of the pendulum; and being then engaged in medical studies, he proposed to apply that property as a means of ascertaining the rate of the pulse. At a more mature age, he had an idea of making use of a pendulum as a regulator of clock-work; but he was ignorant of the theory of the isochronism, which was first given by Huygens. The three (so called) laws of motion, though they are not distinctly enunciated, are virtually involved in the reasoning which he employs in his "Dialogues on

Mechanics," published in 1638. The principle of virtual velocities has usually been ascribed to him: the germ is, however, to be found in the anterior writings of his first patron and early friend, Guido Ubaldi. In mathematics he was not an inventor; and it would seem that his acquirements in this department were scarcely equal to the state of knowledge at the time. Delambre has remarked as extraordinary, that in his long calculations (published in 1632) to prove that the new star of 1572 had no parallax, he made no use of logarithms, although the tables of Napier, Kepler, Ursinus, and Briggs, were then in existence, and would have greatly abridged his labor. In a letter to the grand duke, written in 1609, he mentions several mathematical treatises on which he was engaged; among others, one on the composition of continuous quantity. It is not very clear that the works alluded to ever existed elsewhere than in his own mind; but with reference to the one just mentioned, Cavalleri long refused to publish his own theory, in the hope that Galileo's would be given to the world. On these very insufficient grounds, Libri gives him the credit of having imagined the calculus of indivisibles.

It is not our purpose to enumerate the specific services which Galileo rendered to the physical sciences; and still less to enter into any account of the long and prolix discussions with which the announcement of the greater part of his discoveries was followed. His claim to the gratitude of posterity consists not so much in his actual discoveries, important though they were, as in the revolution which he contributed to effect in philosophy, by applying geometrical reasoning to experimental facts, and teaching mankind to reject the dogmas of the schools, and to appeal from the authority of Aristotle to reason and observation. It cannot, indeed, be said that he was either the first who followed the inductive method of reasoning, or who perceived and denounced the worthlessness of the scholastic philosophy; but the credit which he had gained by the telescope, and the wonders it revealed, and, above all, the extraordinary elegance and perspicuity of his writings, threw the merits of others into the shade; and gave an impulse and currency to his opinions, which they would not have obtained without these accessory advantages. Considering the frequency with which his name occurs in all the scientific productions of the seventeenth century, and that it stands at the head of so many important discoveries, both in astronomy and mechanics, we may admit the remark of his countryman Libri, that in science he was the master of Europe.

The circumstances which entitle Galileo to be regarded as a *martyr of science*, are the persecutions he sustained on account of his assertion of the earth's motion; his trial, condemnation, and imprisonment, by the inquisition; and his constrained abjuration, in his old age, of the Copernican doctrine, which it had been the principal busi-

ness of his life to establish. This episode in his history has been represented in very different colors by his biographers; some ascribing his persecution to the jealousy with which the Romish church has always been disposed to regard the propagation of physical knowledge; while others have considered that it was provoked, if not altogether compelled, by his own imprudent conduct; which left the heads of the church no alternative but to reduce him to silence, or abandon their pretensions to spiritual authority. Sir David Brewster has treated this subject with fairness and moderation. He is no apologist of the inquisition; yet, on perusing his narrative, we cannot fail to see that its conduct, in this particular case, was not without circumstances of palliation; and that Galileo himself, like many others who have had the credit of suffering for the cause of truth, had no small share in stirring up the persecution by which his last years were embittered.

Galileo had adopted the Copernican theory at an early period; and as it was not the disposition of his mind long to cherish any opinion in silence, keen discussions on the subject had taken place between himself and the Peripatetics during his residence at Padua. Defeated in argument, they invoked the aid of religion, and attempted to silence him by the authority of Scripture. The heads of the church, though disliking the innovation, were reluctant to commit themselves by a formal condemnation of the doctrine, and desirous that it should be viewed in the light of a mere mathematical hypothesis. In fact, the theory of the earth's motion, so far from having met with opposition on its first promulgation, had been received with favor by some of the most eminent cardinals and churchmen; and Copernicus, himself a priest, had dedicated his great work, *De Revolutionibus*, to the pope. But when Galileo, who had no spiritual character, began to disseminate the same doctrine, the Dominicans took alarm, and forced the church into a reluctant declaration of its sentiments. In replying to the objections which his opponents drew from certain texts of Scripture, Galileo, in a letter to his friend and pupil Castelli, endeavored to prove that the expressions employed in the sacred writings were not intended to have reference to astronomical systems; and that there was, in fact, as much difficulty in reconciling the language of Scripture with the Ptolemaic as with the Copernican theory; and in 1615 he published a letter, addressed to the mother of the grand duke, in which the same arguments were stated at greater length, and enforced with quotations from the ancient fathers, and instances of the former practice of the church. The publication of these letters gave great offence to the court of Rome; for, however favorably it might be disposed to the new doctrines, it could not submit to see the interpretation of the Scriptures wrested from the hands of the priesthood by a layman. Galileo, having reason to apprehend that the doc-

trine would be formally condemned, proceeded to Rome for the purpose of endeavoring to avert, if possible, this consequence. Here, he was brought before the tribunal of the inquisition, charged with maintaining the doctrine of the motion of the earth and the immobility of the sun, teaching it to his pupils, and attempting to reconcile it to Scripture. In February, 1616, a congregation of cardinals, having considered the charges, decreed that Galileo should be enjoined to renounce the obnoxious doctrines, and to pledge himself, under the penalty of imprisonment, that he would neither teach, defend, or publish them in future. Galileo, says Sir David Brewster, "did not hesitate to yield to this injunction. On the day following, the 26th of February, he appeared before Cardinal Bellarmine to renounce his heretical opinions; and, having declared that he abandoned the doctrine of the earth's motion, and would neither defend nor teach it, in his conversation or his writings, he was dismissed from the bar of the inquisition."

Having disposed of the case of Galileo, the congregation next proceeded to consider the doctrine itself; and on the 5th of March of the same year, a formal decree was pronounced, declaring it to be false, and contrary to the Holy Scriptures; and in order that the heresy might spread no further to the prejudice of catholic truth, they decreed that the work of Copernicus should be suspended until it should have been corrected; and that the book of one Foscarini, a Carmelite friar, should be altogether prohibited and condemned, together with all other works teaching the same doctrine. In this general prohibition, therefore, Galileo's letters to Castelli and the grand duchess were included, although they were not expressly named. Galileo remained for some time at Rome, doing his best, it would seem, notwithstanding his pledge, to frustrate these intentions. Nevertheless, he had an audience of the pope, by whom he was very graciously received. The pope assured him, "that the congregation were not disposed to receive upon light grounds any calumnies that might be propagated by his enemies, and that, so long as he occupied the papal chair, he might consider himself safe." These assurances (Sir D. Brewster remarks) "were no doubt founded on the belief that Galileo would adhere to his pledges; but so bold and inconsiderate was he in the expression of his opinions, that, even in Rome, he was continually engaged in controversial discussions." To such a length was this imprudence carried, that the Tuscan minister, apprehensive of the consequences, represented the danger which Galileo was incurring to the grand duke, who, by a letter under his own hand, recalled him to Tuscany.

In 1623, Cardinal Maffeo Barberini succeeded to the papal chair, under the title of Urban VIII. This personage having been an intimate friend of Galileo, the latter was induced to proceed to Rome,

to congratulate him upon his accession. Here, says Sir D. Brewster, he met with a noble and generous reception:—

"The kindness of his holiness was of the most marked description. He not only loaded Galileo with presents, and promised him a pension for his son Vincenzo, but wrote a letter to Ferdinand II., who had just succeeded Cosmo as Grand Duke of Tuscany, recommending Galileo to his particular patronage:—'For we find in him,' says he 'not only literary distinction, but the love of piety; and he is strong in those qualities by which pontifical good-will is easily obtained.'"

The spirit in which Galileo met the forbearance of the inquisition, and the favors of the pope, is thus set forth:—

"Although Galileo had made a narrow escape from the grasp of the inquisition, yet he was never sufficiently sensible of the lenity which he experienced. When he left Rome in 1616, under the solemn pledge of never again teaching the obnoxious doctrine, it was with a hostility against the church, suppressed, but deeply cherished; and his resolution to propagate the heresy seems to have been coeval with the vow by which he renounced it. In the year 1618, when he communicated his theory of the tides to the Archduke Leopold, he alludes, in the most sarcastic terms, to the conduct of the church. The same hostile tone, more or less, pervaded all his writings; and, while he labored to sharpen the edge of his satire, he endeavored to guard himself against its effects by an affectation of the humblest deference to the decisions of theology."

It is justly remarked by Sir David Brewster, that whatever allowance may be made for the ardor of Galileo's temper, and however we may justify or even approve of his conduct up to this time, his visit to the pope, in 1624, placed him in a new relation to the church, which demanded on his part a new and corresponding demeanor. The advances were made on his side—he had been received with courtesy and kindness—been loaded with favors, and had accepted pensions for himself and his son:—

"Thus honored by the head of the church, and befriended by its dignitaries, Galileo must have felt himself secure against the indignities of its lesser functionaries, and in the possession of the fullest license to prosecute his researches and publish his discoveries, provided he avoided that dogma of the church which, even in the present day, it has not ventured to renounce. But Galileo was bound to the Romish hierarchy by even stronger ties. His son and himself were pensioners of the church; and, having accepted of its alms, they owed it at least a decent and respectful allegiance. The pension thus given by Urban, was not a remuneration which sovereigns sometimes award to the services of their subjects. Galileo was a foreigner at Rome. The sovereign of the papal state owed him no obligation; and hence we must regard the pension of Galileo as a donation from the Roman pontiff to science itself; and as a declaration to the Christian world, that religion was not jealous of philosophy, and that the church of Rome was willing to respect and foster even the genius of its enemies.



"Galileo viewed all these circumstances in a different light. He resolved to compose a work, in which the Copernican system should be demonstrated; but he had not the courage to do this in a direct and open manner. He adopted the plan of discussing the subject in a dialogue between three speakers, in the hope of eluding, by this artifice, the censure of the church. This work was completed in 1630; but owing to some difficulty in obtaining a license to print it, it was not published till 1632. In obtaining this license, Galileo exhibited considerable address, and his memory has not escaped from the imputation of having acted unfairly, and of having involved his personal friends in the consequences of his imprudence."

The charge here hinted at, refers to the concealment from the censors, whose duty it was to examine and authorize the publication of the work, of the material fact, that he had been enjoined by the inquisition, in 1616, not to hold or to teach the Copernican doctrine in any way whatever; and this is one of the circumstances of offence recited in the sentence that was ultimately passed on him. In consequence of the license, Ricardi, the master of the palace, and Ciampoli, the pope's private secretary, were dismissed from their situations, and even the Inquisitor of Florence did not escape a reprimand.

The work thus furtively ushered into the world, produced an immense effect, not only in Italy but over Europe. The pope was greatly exasperated; and it has been said that the enemies of Galileo endeavored to persuade him, that the *Simplicio* of the dialogue—the Peripatetician whose feeble attempts to support Aristotle and Ptolemy were met by so overwhelming a force of argument and ridicule—was intended to represent his holiness. He appointed a commission to inquire into the circumstances, and Galileo was again summoned to appear before the Inquisition at Rome. Here he arrived in February, 1633—all the efforts of the grand duke and the Tuscan ambassador to obtain a dispensation from his attendance, on the grounds of his advanced age, his declining health, and the inconvenience of the quarantine regulations then in force, having been unsuccessful. These remonstrances, however, were not altogether without effect. The quarantine was relaxed in his favor; he was allowed to take up his residence in the house of the Tuscan ambassador; he was visited by the pope's nephew; and throughout the whole of the proceedings, and the trial which followed, he was treated with the most marked indulgence and consideration. It would be uninteresting to describe in detail the proceedings before the court of the inquisition; the result is thus stated by our author—

"A long and elaborate sentence was pronounced, detailing the former proceedings of the Inquisition, (in 1616,) and specifying the offences which he had committed in teaching heretical doctrines, in violating his former pledges, and in obtaining, by improper means, a license for the printing of his dialogues. After an invocation of the name of

our Saviour and of the Holy Virgin, Galileo is declared to have brought himself under strong suspicions of heresy, and to have incurred all the censures and penalties which are enjoined against delinquents of this kind; but from all these consequences he is held to be absolved, provided that with a sincere heart, and a faith unfeigned, he abjures and curses the heresies he has cherished, as well as every other heresy against the Catholic church. In order that his offence might not go altogether unpunished, that he might be more cautious in future, and be a warning to others to abstain from similar delinquencies, it was also decreed that his dialogues should be prohibited by public edict; that he himself should be condemned to the prison of the inquisition during their pleasure; and that, in the course of the next three years, he should recite once a-week the seven penitential psalms."

Galileo offered no resistance to this decree, but immediately signed the act of abjuration; in which he "invoked the divine aid in abjuring, and detesting, and vowing never again to teach, the doctrine of the earth's motion and the sun's stability; pledged himself that he would never again, either in words or writing, propagate such heresies; and swore that he would fulfil and observe the penances which had been inflicted upon him."—(p. 93.)

Galileo's abjuration was unquestionably a great triumph for the Romish church, and due care was taken to make it widely known. Sir David Brewster seems to consider that his character received some tarnish from the facility with which he renounced a doctrine which he had established by so many proofs, and of the truth of which he must have entertained a profound conviction. Assuredly his conduct displayed little of the firmness of a martyr; nor can he aspire to participate, in that respect, the approbation and applause which mankind willingly award to those who stand prepared to sacrifice even life for their principles. It must be remembered, however, that the matter at issue was not, like some speculative article of a theological system, a question of authority or opinion. Galileo must have felt that, whatever the inquisition might be pleased to decree, the fate of his doctrines would ultimately be decided by facts and observations over which they had no control. He might reason as Pascal did with the Jesuits:—"It is in vain that you have procured against Galileo a decree from Rome condemning the opinion of the earth's motion. Assuredly that will never prove it to be at rest; and if we have unerring observations proving that it turns round, not all mankind together can keep it from turning, nor themselves from turning with it." Having this conviction, he must have felt that the progress of truth could neither, on the one hand, be retarded by formal submission to ecclesiastical power, nor on the other, advanced by self-sacrifice. Under such circumstances, the insincerity of his act should not, perhaps, be severely judged. That Galileo was insincere in his abjuration cannot be doubted; his persecutors were probably not more

sincere; indeed, it is apparent on the face of the proceedings, that the point about which the inquisition was solicitous, was not the truth or falsehood of the doctrine, but submission to the spiritual supremacy of the church.

A question has been mooted with respect to this trial, which, though it is not alluded to by our author, we shall briefly notice, in consequence of the prominent manner in which it has recently been brought forward by Libri. It has been surmised, that, in the course of his examination, Galileo was put to the torture. The ground of this surmise is the following sentence in the recital prefixed to the decree of the inquisition:—"But whereas it appeared to us that you had not disclosed the whole truth with regard to your intentions, we thought it necessary to proceed to the rigorous examination of you, in which you answered like a good Catholic."\* Now, it is argued, that, in the books of the inquisitorial law, the phrase *rigorous examination* is understood to imply torture; and processes are said to be extant which leave no doubt as to the correctness of this interpretation. Libri, indeed, goes the length of asserting, that, according to the laws of the Holy Office, whenever there was doubt with respect to the intention of the accused, it was a matter of necessity to have recourse to torture. It is true, that neither Galileo himself, nor Niccolini, the ambassador of the grand duke, who transmitted an account of the proceedings to his master, has made the slightest allusion to torture; but to account for their silence, it has been argued that the inquisition was known to impose the most profound silence on those who had the misfortune to be brought before it, and that the trial of Galileo, as is evident from the correspondence of Niccolini, was, in a particular manner, shrouded in mystery. In the absence of all direct evidence, Libri and others have urged the probability of the allegation from the known character of the inquisition, and its conduct in other instances; but arguments of this kind must be received with great caution, when used for the purpose of proving a specific charge. It is a curious circumstance, that the document containing the original process, which would have afforded conclusive evidence in the present question, was in France previous to the restoration of the Bourbons, and that Napoleon intended to publish it. Libri states that at the restoration it was lost, or probably made away with. According to what is said of it by Venturi, who had his information from Delambre, the document was mutilated towards the end; and Venturi was of opinion, that it would be in the defective part that the *Catholic answers* of Galileo, in his *rigorous examination*, might be expected to be contained.†

\* *Life of Galileo*, p. 60.—*Library of Useful Knowledge*.

† The new Edition of Galileo's Works, now publishing at Florence, may be expected to contain documents, or information, which will set this question at rest.

Sir David Brewster, as we have already said, has made no allusion to this subject, probably considering the allegation, on such flimsy grounds, of a proceeding so utterly at variance with all that is certainly known with respect to the treatment of Galileo by the inquisition, as undeserving of attention. In fact, the indulgence he met with during and subsequent to the trial, was such as must destroy every shadow of a suspicion of torture, at least if the inquisition is to be judged of according to the rules which are ordinarily applied to human actions.

"Galileo had remained only four days in the prison of the inquisition, when, on the application of Niccolini, the Tuscan ambassador, he was allowed to reside with him in his palace. As Florence still suffered under the contagious disease we have already mentioned, it was purposed that Sienna should be the place of Galileo's confinement, and that his residence should be in one of the convents of that city. Niccolini, however, recommended the palace of the Archbishop Piccolomini as a more suitable residence; and though the archbishop was one of Galileo's best friends, the pope agreed to the arrangement, and in the beginning of July Galileo quitted Rome for Sienna.

"After having spent nearly six months under the hospitable roof of his friend, with no other restraint than that of being confined to the limits of the palace, Galileo was permitted to return to his villa near Florence under the same restrictions; and as the contagious disease had disappeared in Tuscany, he was able, in the month of December, to reënter his own house at Arcetri, where he spent the remainder of his days."—(p. 101.)

Galileo survived this proceeding about nine years. Soon after his return to Arcetri, he lost his favorite daughter, who had piously taken on herself that portion of his penance which consisted in the weekly recital of the penitential psalms; and the event appears to have deeply affected his health and spirits. With the exception of a few months, during which he was permitted to reside at Florence, the whole of the remainder of his life was passed at Arcetri, which, in his familiar letters, he styled his prison. During this period he composed his "*Dialogues on Motion*," one of the most important of his works. His last astronomical discovery was the diurnal libration of the moon, in 1636. Soon after this, he lost the sight of an eye, and subsequently became totally blind. He died on the 8th of January, 1642, in the 78th year of his age.

The personal character of Galileo has been the theme of much eulogy. His manners are reported to have been cheerful and affable, and such as secured the warm attachment of friends. He is said to have been distinguished for his hospitality and benevolence, to have been "liberal to the poor, and generous in the aid which he administered to men of genius and talent, who often found a comfortable asylum under his roof;" and, although his temper was easily ruffled, "the excitement was transient, and the cause of it speedily forgotten." Notwithstanding these general eulogies, an at-

tentive reader of his "Letters" will be apt to suspect that his mind was tinged with a considerable share of selfishness and attention to personal indulgence and comfort, and with some illiberality in his appreciation of the discoveries of his contemporaries. From the style of his "Dialogues," as well as the accounts which have been given by others, of his disputes with the Aristotelians, we readily infer that he was fond of argument and disputation, perhaps of display; for his controversial powers were of the highest order, and gave him a great superiority over his adversaries. In his morals Sir David Brewster considers that he was somewhat lax. He never was married, and his children were legitimated by the grand duke. He appears to have been fond of the more exhilarating pleasures of the table. His hospitable board was ever ready for the reception of his friends; and though he was himself abstemious in his diet, he seems to have been a lover of good wines, of which he received always the choicest varieties out of the grand duke's cellar. This peculiar taste, together with his attachment to a country life, rendered him fond of agricultural pursuits, and induced him to devote his leisure hours to the cultivation of his vineyards. Sir David concludes his account of Galileo with the following eulogy of his scientific character:

"The scientific character of Galileo, and his method of investigating truth, demand our highest admiration. The number and ingenuity of his inventions, the brilliant discoveries which he made in the heavens, and the depth and beauty of his researches respecting the laws of motion, have gained him the admiration of every succeeding age, and have placed him next to Newton, in the lists of original and inventive genius. To this high rank he was doubtless elevated by the inductive processes which he followed in all his inquiries. Under the sure guidance of observation and experiment, he advanced to general laws; and if Bacon had never lived, the student of nature would have found in the writings and labors of Galileo, not only the boasted principles of the inductive philosophy, but also their practical application to the highest efforts of invention and discovery."—(p. 118.)

Tycho Brahé, the second of the so-called martyrs, though he has been usually represented as immeasurably inferior to Galileo as a philosopher, rendered services to astronomy of a far more important character. Unfortunately for his reputation, his name has come down to posterity in connection with an hypothesis respecting the arrangement of the solar system, which never had any followers, and which, coming after that of Copernicus, has always been regarded as a retrograde step in theory. But if we put the unlucky hypothesis, with some other speculative notions of Tycho, out of view, and fix our attention solely on the extent, accuracy and importance of his observations, and the results to which they led, we may easily satisfy ourselves that there is no observer, ancient or modern, whose labors have produced a more marked influence on the progress of astronomical science.

The anecdotal life of Tycho was written in minute and almost trifling detail by Gassendi; who has been flatteringly designated by Gibbon as "*le meilleur philosophe des littérateurs, et le meilleur littérateur des philosophes.*" In respect of astronomical knowledge, Gassendi was well qualified for the task; but his memoir is entirely panegyric; and as he appears to have been of a credulous disposition, and to have adopted without scruple the sentiments and opinions of Tycho—whose ideas of his own merit and importance were of a somewhat exalted nature—his narrative has a considerable air of exaggeration, which has pervaded all the subsequent biographies, the present not excepted.

Tycho was descended from a noble Swedish family which for some generations had been settled in Denmark, and was born at Knudstorp, near Helsingborg, in 1546. His father having died at an early age, he was adopted by a paternal uncle; and after receiving the rudiments of a liberal education, he was sent to the University of Copenhagen to study rhetoric and philosophy. In 1562 he removed to Leipsig, to study jurisprudence, with the view of following the profession of the law; but in this he took no interest, and astronomy engrossed all his thoughts. On the death of his uncle, in 1565, he was recalled to Denmark, where he continued diligently to prosecute his astronomical studies, to the great displeasure of his family, who ridiculed his pursuits, and reproached him with abandoning his profession. To escape the annoyance which this conduct occasioned him, and improve himself in astronomy, he resolved to visit the principal cities of Germany. At Rostock he unfortunately had a quarrel with Manderupius Pasbergius, a countryman of his own, which ended in a duel fought in the dark. "In this blind combat, Manderupius cut off the whole of the front of Tycho's nose; and it was fortunate for astronomy," says our author, "that his more valuable organs were defended by so faithful an outpost." Tycho repaired his loss as well as he could by an artificial nose, composed of an alloy of gold and silver; and Gassendi appeals to his portraits in proof of its excellent imitation of the original. At Augsburg he found a kindred spirit in a rich burgher, Paul Hainzel, in concert with whom he constructed an enormous quadrant of fourteen cubits radius, which "twenty men could with difficulty transport to its place of fixture;" and also a sextant of four cubits, with which he made numerous observations. About the end of 1571 he returned to Denmark, where, in consequence of the reputation he had now acquired, he was received with great consideration, and invited to court by the king. At this time, his attention was chiefly engrossed with the pursuits of chemistry, or rather alchemy, which through his whole life he prosecuted with no less ardor than astronomy. "In the hopes of enriching himself by the pursuits of alchemy, Tycho devoted most of his attention to



those satellites of gold and silver which now constituted his own system, and which disturbed by their powerful action the hitherto uniform motions of the primary. His affections were ever turning towards Germany, where astronomers of kindred view, and artists of surpassing talent, were to be found in almost every city. The want of money alone prevented him from realizing his wishes; and it was in the hope of obtaining the means of travelling, that he in a great measure forsook his sextants for his crucibles." While thus occupied, the appearance of the new star in 1572, which suddenly shone forth with remarkable splendor, and continued visible for sixteen months, had the effect of recalling him to the path in which he was destined to acquire his permanent fame. He first saw the body on the 11th of November, and he immediately proceeded to observe its place, and note its form, magnitude, and appearance. His observations were assiduously continued for several months, and they form the basis of his work, "*De Nova Stella, Anni 1572*," which was published in the following year.

Previous to the publication of this work, Tycho felt or affected an apprehension of degrading his nobility, by appearing publicly in the character of an astronomer and author. Soon after, he committed a greater offence against his order, by marrying a peasant girl—an act by which his relations were so greatly displeased, that a reconciliation could only be effected through the mediation of the king. About the same time, he gave public lectures on astronomy, in which he defended astrology; but he took care to mention, that he was only induced to lecture by the special request of the monarch. In 1575, he set out on a second journey through Germany. He first visited Hesse Cassel, where the Landgrave had erected a splendid observatory; and having travelled through Switzerland and Italy, he returned to Denmark with the intention of removing his family to Basle, where he had resolved permanently to settle. But his fame had now rendered him a personage whose presence conferred honor on his country; in order, therefore, to induce him to establish himself in Denmark, the king offered him a grant for life of the little island of Huen, in the entrance of the Baltic, and undertook to build him an observatory, a house, and a laboratory for his chemical experiments. Tycho willingly acceded to these liberal proposals, and forthwith proceeded to erect on his new property the celebrated observatory of Uraniburg, (the city of the heavens,) a noble edifice, which cost the king of Denmark 100,000 rixdollars, (about £20,000,) and on which Tycho is said to have expended an equal sum. This statement, however, appears to rest on the authority of a representation made to the Emperor of Germany by Tycho's heirs, who had a purpose to serve in magnifying his sacrifices, and probably spoke in round numbers. Tycho himself says, more picturesquely, that he expended on the ob-

servatory and instruments, more than a *ton of gold*. Now, as we have seen him, a few years previously, represented as applying himself to alchemy in the hope of procuring the means of travelling in Germany, and as it is not alleged that his search for the philosopher's stone was successful, we may be excused in suspecting some exaggeration. However this may be, he appears to have exhausted his private fortune; and, in order to provide for his expenses, the king granted him an annual pension of 2000 dollars, an estate in Norway, and a canonry in the church of Rothschild worth 1000 dollars a year. Tycho remained upwards of twenty years in Huen, engaged in the preparation of his catalogue of the stars, and accumulating a mass of important observations. Nor was his fame confined to his island or country; it extended over Europe, and procured him visits from several royal personages, among others from James VI. of Scotland, (upon the occasion of his marriage with the princess Anne,) who, with a numerous suite, passed eight days with Tycho, admiring his instruments and mechanical contrivances, and discoursing on the Copernican system—an occupation which must have been entirely to the taste of the royal pedant.

Through some unexplained cause, Tycho, after the death of Frederick II., fell into disfavor with the court of Denmark, and was deprived of his canonry, his estate in Norway, and his pension. Being thus left without the means of supporting the expenses of his establishment, he, in 1597, removed his instruments and family to Copenhagen; but finding himself still exposed to persecution, he resolved forever to leave his ungrateful country. The description of his emigration is affecting. "He carried from Huen everything that was movable, and having packed up his instruments, his crucibles, and his books, he hired a ship to convey them to some foreign land. His wife, his *five* sons and *four* daughters, his male and female servants, and many of his pupils and assistants, among whom were Tengnagel, his future son-in-law, and Longomontanus, embarked at Copenhagen, to seek the hospitality of a better country than their own."—(p. 171.) (Here we must take leave to correct a slight error Tycho's family, on leaving Denmark, consisted of only *two* sons and four daughters.) His first landing-place was Rostock; but after a short time he took up his residence with his friend Count Rantzau, in the castle of Wandesberg, near Hamburg; and finally procured an invitation to settle at Prague, from the Emperor Rudolph II. After some delay he set out for Bohemia, and arrived at Prague in the beginning of 1599. He met with a cordial reception from the emperor, who conferred upon him favors and appointments more than sufficient to compensate his losses in Denmark. A pension of three thousand crowns, an estate in perpetuity, a town house, and the choice of various castles and houses in the country, were the immediate and

munificent gifts of Rudolph. He selected the castle of Benach, but after a few months transferred his family and instruments to a house which had been purchased for him in Prague. But his career was now drawing to a close. He removed to Prague in February, 1601. On the 13th of October, in the same year, while supping at the table of a nobleman, where they drank freely, he experienced some feelings of discomfort, but, from motives of courtesy, he remained at table, and on his return home was seized with a retention of urine, in consequence of which he expired, after ten days of extreme suffering. He died in the 55th year of his age; his last words, repeated frequently during his delirium, being *Ne frustra videar vixisse*.

Such is a brief outline of the life of this remarkable man. To appreciate the services which he rendered to astronomy, it is necessary to consider the state of the science at the time he commenced his labors. The question between the rival theories of Ptolemy and Copernicus was then undecided; and as both hypotheses sufficed for the explanation of the observed phenomena, and afforded nearly equal facilities for calculation, no further advance could be made without more numerous and accurate observations. This was precisely what Tycho undertook to supply. Born in a favorable position, possessing independent resources, and liberally aided by the king of Denmark, he erected an observatory of more than regal magnificence; constructed or procured instruments superior in magnitude and accuracy to any that had been previously seen; engaged the services of able and zealous assistants, and devoted himself to assiduous observation during a long series of years. The result was the accumulation of a large mass of very accurate observations, which, falling into the hands of Kepler, led to the discovery of the true nature of the planetary orbits, and a complete revolution in astronomy.

Although Tycho's principal merit is that of a diligent and accurate observer, various results which he deduced from his observations were important improvements in theory. He was the first who pointed out the diminution of the obliquity of the ecliptic. He detected several inequalities in the moon's motions, and determined their law. He proved from the parallax of comets that these bodies are situated far beyond the orbit of the moon, and consequently that the heavens are not, as was then supposed, solid transparent spheres. He formed the first table of refractions; imperfect, no doubt, as it extended only to  $45^\circ$  in altitude;—but before the discovery of the telescope, the effect of refraction beyond that altitude was insensible. He introduced into practical Astronomy various improvements on the methods of observing; and he set the example of carefully verifying his instruments, and ascertaining the amount of instrumental errors. But the most valuable result of his labors is his catalogue of fixed stars. The cata-

logue, as originally published in the *Progymnas-mata*, contained 777 stars; but the number was afterwards increased, by Kepler, from the original observations to 1005; and it is to be kept in mind, that all the observations were made with extra-meridional instruments, and reduced by the laborious method of distances. This monument of Tycho's industry was republished last year, (1843,) along with some other ancient catalogues; under the care and at the expense of a private gentleman, to whose unostentatious liberality various sciences, but especially astronomy, have been under important obligations.\*

The claim of Tycho to be regarded as a martyr of science rests solely on the circumstances, whatever they were, that led to the withdrawal of his pensions, and his exile from Denmark. Among the losses he sustained on this occasion, the one which he must have most deeply regretted was his observatory, which had been erected at so great an expense, and of which his biographers have given such glowing descriptions—descriptions which, were it not for the minuteness of their details, and the confirmation they receive from the plans and drawings given by Tycho himself, we might almost suppose to have belonged to a romance. The following extract will show Tycho's notions of the accommodation required for an astronomer. After describing the ceremony of laying the foundation, which was done in presence of the king, and at which “copious libations of a variety of wines were offered for the success of the undertaking,” Sir David Brewster thus proceeds:—

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munificent gifts of Rudolph. He selected the castle of Benach, but after a few months transferred his family and instruments to a house which had been purchased for him in Prague. But his career was now drawing to a close. He removed to Prague in February, 1601. On the 13th of October, in the same year, while supping at the table of a nobleman, where they drank freely, he experienced some feelings of discomfort, but, from motives of courtesy, he remained at table, and on his return home was seized with a retention of urine, in consequence of which he expired, after ten days of extreme suffering. He died in the 55th year of his age; his last words, repeated frequently during his delirium, being *Ne frustra videar virisse*.

Such is a brief outline of the life of this remarkable man. To appreciate the services which he rendered to astronomy, it is necessary to consider the state of the science at the time he commenced his labors. The question between the rival theories of Ptolemy and Copernicus was then undecided; and as both hypotheses sufficed for the explanation of the observed phenomena, and afforded nearly equal facilities for calculation, no further advance could be made without more numerous and accurate observations. This was precisely what Tycho undertook to supply. Born in a favorable position, possessing independent resources, and liberally aided by the king of Denmark, he erected an observatory of more than regal magnificence; constructed or procured instruments superior in magnitude and accuracy to any that had been previously seen; engaged the services of able and zealous assistants, and devoted himself to assiduous observation during a long series of years. The result was the accumulation of a large mass of very accurate observations, which, falling into the hands of Kepler, led to the discovery of the true nature of the planetary orbits, and a complete revolution in astronomy.

Although Tycho's principal merit is that of a diligent and accurate observer, various results which he deduced from his observations were important improvements in theory. He was the first who pointed out the diminution of the obliquity of the ecliptic. He detected several inequalities in the moon's motions, and determined their law. He proved from the parallax of comets that these bodies are situated far beyond the orbit of the moon, and consequently that the heavens are not, as was then supposed, solid transparent spheres. He formed the first table of refractions; imperfect, no doubt, as it extended only to  $45^\circ$  in altitude;—but before the discovery of the telescope, the effect of refraction beyond that altitude was insensible. He introduced into practical Astronomy various improvements on the methods of observing; and he set the example of carefully verifying his instruments, and ascertaining the amount of instrumental errors. But the most valuable result of his labors is his catalogue of fixed stars. The cata-

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experiments. The charges against Walchendorp would seem to require some further support, in order to entitle them to be received as matter of authentic history.

Beyond the credit due to Tycho as a practical astronomer, his character presents few points for admiration, and is even stained with the grossest weaknesses and defects. He was a believer in astrology, and a confirmed alchemist;—the discoverer of a new elixir, or universal remedy, "which went by his name, and was sold in every apothecary's shop as a specific against the diseases which were then ravaging Germany." Astrologer, alchemist, and quack, he also aspired to be regarded as a conjurer. "He had various automata, with which he delighted to astonish the peasants; and by means of invisible bells, which communicated with every part of his establishment, and which rung with the gentlest touch, he had great pleasure in bringing any of his pupils suddenly before strangers, muttering at a particular time the words, "Come hither, Peter," as if he had commanded their presence by some supernatural agency."—(p. 196.) The following extract shows that the study of astronomy had not elevated his mind above the most abject superstitions:—

"If, on leaving home, he met with an old woman, or a hare, he returned immediately to his house. But the most extraordinary of all his peculiarities remains to be noticed:—When he lived at Uraniburg, he maintained an idiot of the name of Lep, who lay at his feet whenever he sat down to dinner, and whom he fed with his own hand. Persuaded that his mind, when moved, was capable of foretelling future events, Tycho carefully remarked everything he said. Lest it should be supposed this was done to no purpose, Longomontanus relates that when any person in the island was sick, Lep never, when interrogated, failed to predict whether the patient would live or die."—(p. 197.)

Our author, in an eloquent paragraph, which we regret our limits will not permit us to transfer wholly to our pages, has, with a view to extenuate some of these defects of Tycho's character, discussed the question how far a belief in Alchemy, and the practice of its arts, have a foundation in the weakness of human nature; and to what extent they are compatible with piety and elevated moral feeling. We can only make room for the following passage:—

"The history of learning furnishes us with many examples of that species of delusion in which a great mind submits itself to vulgar adulation, and renounces unwillingly, if it renounces at all, the unenviable reputation of supernatural agency. In cases where self-interest and ambition are the basis of this peculiarity of temperament, and in an age when the conjurer and the alchemist were the companions and even the idols of princes, it is easy to trace the steps by which a gifted sage retains his ascendancy among the ignorant. The hecatomb, which is sacrificed to the magician, he receives as an oblation to his science; and conscious

of possessing real endowments, the idol devours the meats which are offered to him, without analyzing the motives and expectations under which he is fed. Even when the idolator and his god are not placed in this transverse relation, the love of power or of notoriety is sufficient to induce good men to lend a too willing ear to vulgar testimony in favor of themselves; and in our own times, it is not common to repudiate the unmerited cheers of a popular assembly, or to offer a contradiction to fictitious tales which record our talents or our courage, our charity or our piety."—(p. 191.)

We proceed now to a character of a very different class;—one of those rare men, says Laplace, whom nature bestows from time to time on the sciences, in order to develop the great theories prepared by the labors of many ages. Kepler was born at Wïel, in the duchy of Wirtemberg, on the 21st of December, 1571, and was consequently twenty-four years younger than Tycho, and seven years younger than Galileo. His father and mother are represented as having both been of noble extraction, but reduced to indigence by their improvidence or bad conduct. The nobility of his descent, however, afforded him no immunity from the usual inconveniences of poverty; his father, who had been a petty officer in the Duke of Wirtemberg's service, became ultimately the keeper of a tavern at Elmendingen; and he himself, at the age of twelve years, was employed in menial offices in this establishment. In his youth he was of a feeble and delicate constitution, and subject to periodical attacks of severe illness. At the age of fifteen he was admitted into the school of the monastery of Maulbronn, whence, in due time, he proceeded to the university of Tübingen. Here he had Michael Mæstlin for his preceptor in mathematics—an astronomer of no mean repute, and to whom the credit is due of being one of the first who publicly taught the system of Copernicus. Under this tuition Kepler made rapid advances; and, on taking his degree of master, in 1591, he held the second place at the annual examination.

In the biographies of great inventors we expect to find, almost as matter of course, not only some manifestations of the ruling passion in early youth, but indulgence in the favorite pursuits at a more advanced period, in spite of every obstacle and discouragement. Thus Tycho was sent to Leipsic to study law, but passed his nights in measuring the distance of the stars. Galileo was placed at Pisa to study medicine, but gave his whole mind to mechanics. Kepler, however, cannot be cited as an example in illustration of the rule, for he took to astronomy as a matter of duty. On the recommendation of Mæstlin, he was appointed, in 1594, to the professorship of astronomy at Gratz—an office for which he had, at that time, no particular qualification; and he himself states, that he had no predilection for the science, but having been educated at the public expense, he felt himself constrained to accept the first appointment



that was offered him. His attention being thus directed to astronomy, he embarked in the study with the eagerness for which he was remarkable through life, devoting the whole energies of his mind to discover the causes of the number, the size, and the nature of the planetary orbits. The fruits of this application appeared in 1596, in his "Prodromus of Cosmographical Dissertations;"—a work of which the object appears to have been to prove, that the Creator of the universe had observed the relations among the five regular solids, in determining the order, number, and proportions of the planetary orbits. Wild and extravagant as were the theories propounded in this remarkable volume, the boldness and originality of genius, as well as powers of application which it manifested, called forth the approbation of Galileo and Tycho, and stamped the author as one of the first astronomers of the age. Kepler's position at Gratz was by no means an agreeable one. The feuds between the Catholics and Protestants, which then agitated the city, were a source of continual annoyance to him; his income was insufficient for his support; he had married, and his wife's dowry having turned out less than he had been led to expect, he was involved in disputes with her relations. In 1600 he visited Tycho at Prague, for the purpose of obtaining from that astronomer more accurate data for the determination of the eccentricities of the planets; and an arrangement was proposed whereby he should become one of Tycho's assistants. Before this plan could be carried into effect, Kepler, in consequence of fresh troubles at Gratz, was induced to resign his appointment at that place; and being thus left without the means of subsistence, he applied for the professorship of medicine at Tübingen. From this purpose, which would probably have given an entirely different direction to his studies, he was dissuaded by Tycho; who invited him to Prague, presented him to the emperor, and procured for him the title and emoluments of imperial mathematician, on the condition that he should assist in reducing the observations. Longomontanus was at that time Tycho's first assistant, and it was agreed that they should undertake the computation, from Tycho's observations, of an entirely new set of astronomical tables; to be called, in honor of the emperor, the "Rudolphine Tables." The proposal was encouraged by the emperor, who pledged himself to defray the expenses of the publication; but the death of Tycho, in 1601, and the return of Longomontanus to Copenhagen, put an end to the scheme for the present.

Upon the death of Tycho, Kepler succeeded him as first mathematician to the emperor, and came into possession of his invaluable collection of observations. To this office a handsome salary was attached; but the imperial treasury being drained by expensive wars, Kepler experienced great difficulties in providing a subsistence for his family. But his astronomical pursuits were not

forgotten. "No adverse circumstances were capable of extinguishing his scientific ardor, and, whenever he directed his vigorous mind to the investigation of phenomena, he never failed to obtain interesting and original results." At this period, he occupied himself with researches on the subject of refraction. His "Supplement to Vitellio" was published in 1604;—a work which contained the best account of astronomical optics then extant, and in which the offices performed by the different parts of the eye, in the act of vision, were first distinctly explained. In 1611, he published another work on the same subject, his "Dioptrics," which contains the first theoretical explanation which was given of the construction of the telescope. But the most important result of his labors at this period of his life, and indeed by far the most valuable of all his productions, was his "Commentaries on the Motions of Mars," which appeared in 1609. In this remarkable work he has recorded the various steps by which he was led to two of his greatest discoveries; namely, that the orbit of Mars is an ellipse having the sun in one of its foci; and that the time of describing any arc is proportioned to the area included between the curve and two straight lines drawn from the sun to the extremities of the arc. These important laws, together with the correct views on gravity disclosed in this work, entitle its author to be regarded as the precursor of Newton and Laplace, and the founder of celestial mechanics.

As an account of this volume, and of Kepler's principal astronomical discoveries, has been given in a former number of this Journal, we shall not dwell on them here, but proceed to give a few more incidents of his personal history. The melancholy posture of his private affairs about this time, is thus described by Sir David Brewster:—

"When Kepler presented to Rudolph the volume which contained these fine discoveries, he reminded him jocularly of his requiring the sinews of war to make similar attacks upon the other planets. The emperor, however, had more formidable enemies than Jupiter and Saturn, and from the treasury, which war had exhausted, he found it difficult to supply the wants of science. While Kepler was thus involved in the miseries of poverty, misfortunes of every kind filled up the cup of his adversity. His wife, who had long been the victim of low spirits, was seized, towards the end of 1610, with fever, epilepsy, and phrenitis, and before she had completely recovered, all his three children were simultaneously attacked with the small pox. His favorite son fell a victim to the malady, and, at the same time, Prague was partially occupied by the troops of Leopold. The part of the city where Kepler resided was harassed by the Bohemian levies, and, to crown the list of evils, the Austrian troops introduced the plague into the city."—(p. 228.)

In consequence of his pecuniary embarrassments, Kepler made an attempt to obtain a professorship at Linz, in Austria; but the emperor would not consent to his leaving Prague, and encouraged him with hopes of payment of the arrears of his

salary. On the death of Rudolph, Kepler again received the appointment of imperial mathematician, and was allowed to accept the chair at Linz. Here he contracted his second marriage, and continued to reside during seven years, but with small improvement of his circumstances; for under Mathias, the imperial finances appear to have been in a still less flourishing state than under Rudolph; and Kepler, who depended mainly upon his pension for his means of living, suffered great vexation in consequence of its remaining unpaid. "In order," he says, "to defray the expense of the Ephemeris for two years, I have been obliged to compose a vile prophesying almanac, which is scarcely more respectable than begging, unless from its saving the emperor's credit, who abandons me entirely, and would suffer me to perish with hunger." But the death of Mathias in 1619 gave him hopes of better times; for the new emperor, Ferdinand III., not only renewed his appointment, but promised to pay up all the arrears of his pension; and to furnish him besides with the means of accomplishing the great object of his ambition, the publication of the Rudolphine Tables. In 1622, Kepler published his *Harmonices Mundi*, a work filled with speculations on a great variety of subjects—geometry, music, astrology, astronomy, and metaphysics; but chiefly remarkable, as containing the announcement of the relation which subsists between the periodic times, and the mean distances of the planets. The beauty and extreme importance of this general law of the planetary system, is such as to render the burst of joy with which he announced it in no way extravagant:—

"This law, as he himself informs us, first entered his mind on the 8th of March, 1618; but, having made an erroneous calculation, he was obliged to reject it. He resumed the subject on the 15th of May; and, having discovered his former error, recognized with transport the absolute truth of a principle which, for seventeen years, had been the object of his incessant labors. The delight which this grand discovery gave him had no bounds. 'Nothing holds me,' said he; 'I will indulge in my sacred fury; I will triumph over mankind by the honest confession that I have stolen the golden vases of the Egyptians to build up a tabernacle for my God, far away from the confines of Egypt. If you forgive me, I rejoice; if you are angry, I can bear it. The die is cast, the book is written, to be read either now or by posterity, I care not which. It may well wait a century for a reader, as God has waited six thousand years for an observer.'"—(p. 240.)

The "Rudolphine Tables," in the preparation of which Kepler had been engaged for twenty-six years, after having been long delayed for want of funds to defray the expenses of the printing, and subsequently from the disturbed state of Germany during the wars of the reformation, were at length published in 1628. The work is remarkable in the history of astronomy, as containing the first tables which were calculated on the hypothesis of elliptic orbits, and as exhibiting the science under

the form in which it appears in our modern treatises. The labor which Kepler bestowed on its preparation was enormous; and it is curious to observe, that it was increased by the discovery of the logarithms; in consequence of which, he was under the necessity of giving a different form to several of the tables, in order to adapt them to the new method of calculation.

Kepler had continued to reside at Linz since 1622; but, about the time of the appearance of the "Rudolphine Tables," he was invited by the Duke of Friedland, a great patron of astrology, to take up his abode at Sagan, in Silesia. Having solicited permission from the emperor to accept of this invitation, "the emperor did not hesitate to grant the request, and would gladly have transferred Kepler's arrears as well as himself to the service of a foreign prince." Kepler accordingly removed his family to Sagan in 1629, and was favorably received by the grand duke, who treated him with distinction and liberality, and procured for him a professorship in the University of Rostock. But it would seem as if no change had the power of producing any amelioration of Kepler's fortunes:—

"In this remote situation, Kepler found it extremely difficult to obtain payment of the imperial pension, which he still retained. The arrears had accumulated to 8000 crowns; and he resolved to go to the imperial assembly at Ratisbon to make a final effort to obtain them. His attempts, however, were fruitless. The vexation which this occasioned, and the great fatigue which he had undergone, threw him into a violent fever, which is said to have been one of cold, and to have been accompanied by an imposthume in the brain, occasioned by too much study. This disease baffled the skill of his physicians, and carried him off on the 5th of November, O. S., 1630, in the sixtieth [fifty-ninth] year of his age."—(p. 249.)

Kepler's name will always be associated with the discovery of the three laws which regulate the planetary motions; by which he effected a greater revolution in theoretical astronomy than ever had fallen, or can fall again, to the lot of any individual. But he has many other claims upon our consideration. The "Rudolphine Tables" were a most important contribution to practical astronomy, and would alone have sufficed to place him in the first rank among the promoters of that science; and various methods of observation and computation suggested by him are still in use. His physical speculations, though frequently fanciful, and sometimes extravagant, always give evidence of enlarged views and great acuteness; and he nearly anticipated two of Newton's most important discoveries—the law of gravitation, and the theory of the prismatic colors. In mathematics his knowledge was neither systematic nor very profound; and the circumstance was unfortunate for himself, for greater proficiency in this science would have saved him an immensity of unnecessary calculations. Nevertheless, even here he has left the impress of his genius. His method

of solving the problem which goes by his name, is perhaps as well adapted for practical purposes as any of the numerous solutions which have since been given; and his treatise on gauging contains principles near akin to those on which the infinitesimal calculus was afterwards built. No sooner had he heard of the invention of the Logarithms than he perceived its immense importance in astronomy; and immediately set about improving the theory, and computing and publishing new tables.

Kepler's works are composed in a very singular style; for he not only gives the process of reasoning through which he arrived at the conclusions ultimately adopted, but also a detailed account of all his previous trials and failures. This frankness has perhaps been injurious to his reputation, and occasioned his being represented as working in some measure in the dark, and arriving at important results by accident. Thus, in a recent biography, we meet with such remarks as the following:—"It is impossible not to admire Kepler's singular good fortune in arriving at this correct result, in spite, or rather through the means, of his erroneous principles;"—"if he had exerted his ingenuity in this direction, he might have wasted his life in useless labor;"—"if the orbit of Mars had been less oval, he would not have detected the true orbit by the method he followed;"—"it is extraordinary that a supposition made for such a reason should have the *luck* to be the right one;"—"if the laws of the planetary orbits had chanced to have been any other than those which cause them to describe ellipses, this last singular confirmation of an erroneous theory would not have taken place." Whether Kepler would have discovered the laws of the planetary motions had they been different from what they are, is a question of extremely little importance. It is sufficient for his glory, and was sufficient for the wants of astronomy, that he discovered the actually existing laws;—and although the liveliness of his imagination—some prepossessions in favor of occult qualities and mystical properties, together with a want of method and system in his investigations—led him to give expression to many conjectures which would never have occurred to a mind otherwise constituted, or at least would have been suppressed when found to be erroneous—his laws of the planets were discovered, according to our apprehension, in the only way by which such discoveries could be made; namely, by deducing them (after his own fashion, indeed) from the observations which were at his command, and proving, by laborious calculations, that they accurately represented those observations. Sir David Brewster has placed this matter in its proper light:—

"Kepler," he observes, "has fortunately left behind him a full account of the methods by which he arrived at his great discoveries. What other philosophers have studiously concealed, Kepler has openly avowed and minutely detailed; and we have no hesitation in considering these details as

the most valuable present that has ever been given to science, and as deserving the careful study of all who seek to emulate his immortal achievements. It has been asserted that Newton made his discoveries by following a different method; but this is a mere assumption, as Newton has never favored the world with any account of the erroneous speculations and the frequent failures, which must have preceded his ultimate success. Had Kepler done the same, by recording only the final steps of his inquiries, his methods of investigation would have obtained the highest celebrity, and would have been held up to future ages as a pattern for their imitation. But such was the candor of his mind, and such his inordinate love of truth, that he not only recorded his wildest fancies, but emblazoned even his greatest errors. If Newton had indulged us with the same insight into his physical inquiries, we should have witnessed the same processes which were employed by Kepler, modified only by the different characters and intensities of their imaginative powers."—(p. 264.)

The personal character of Kepler has been very fully developed by himself, in his various works and epistolary correspondence; and the incidents of his life, collected chiefly from the same sources, have been succinctly narrated in the Memoirs prefixed to the Collection of Letters published by Hansch. History presents to our consideration few more remarkable characters. His struggles with the world excite our sympathy; his ardor and enthusiasm our admiration. It is, no doubt, an afflicting consideration, that a man whose genius and indomitable energy have done so much for the advancement of human knowledge, should have encountered so unpropitious a fate; yet if we dispassionately consider the circumstances, we may see reason to doubt whether science was in any respect the cause of his misfortunes. If his salary was irregularly paid, the irregularity was owing to political causes, and the unfavorable circumstances of the times. Religious controversies, domestic misfortunes, war, and the plague, are calamities to which the learned and the illiterate are subject indiscriminately. No doubt all his misfortunes were aggravated by the narrowness of his circumstances; but it is by no means certain that his circumstances would have been more prosperous had he followed any other pursuit, though it is probable that in that case the world would never have heard of them. His condition, hard as it was, was not without its shades of light. His lofty title of Imperial Mathematician gave him official consequence among those with whom he lived; and to an enthusiast like Kepler, the consciousness that his discoveries would occupy a prominent place in the future history of science, was a compensation for many evils. Of the importance he attached to his successful labors, he gives us a proof in his declaration, that he would not exchange his discovery of the analogy of the planetary orbits with the five regular solids for the whole Electorate of Saxony. We see no just ground for imputing a disregard of science to Rudolph and his successors, who certainly were in no con-



dition to appreciate Kepler's merits, and whose favor was conferred on him in his character of astrologer. It is, indeed, remarkable how little Kepler's merits were understood in his own age. Galileo had no conception of the importance of his discoveries:—"they were little considered by Gassendi—they were undervalued by Riccioli—they were never mentioned by Descartes. It was an honor reserved for Newton to estimate them at their true value." Such are the words of the late Professor Playfair; yet it is satisfactory to observe, that even before the time of Newton their merit was perceived and acknowledged by *one* astronomer at least in our own country. Horrox describes them as not only valuable, but as more valuable than those of all other astronomers put together—"Pergo igitur ad Astronomiæ principem, J. Keplerum; cujus unius viri inventis, non est harum artium peritus qui neget plus debere astronomiam quam ceteris in universum."

The misfortunes of Galileo, Tycho, and Kepler, arose from peculiar and accidental circumstances; and the sovereigns under whom they lived deserve the praise of having been munificent patrons of science. The following incident in the life of Kepler, gives Sir David Brewster an opportunity of glancing at the encouragement held out to scientific pursuits in our own country. Kepler, it seems, upon one occasion received a visit from Sir Henry Wotton, Ambassador from England to the states of Venice, and was invited by him to take up his residence in England. Sir David thinks it probable that the invitation proceeded from the sovereign, who made Kepler a distinct offer through his ambassador; and upon this supposition he thus expresses himself:—"If the imperial mathematician had no other assurance of a comfortable home in England than that of Sir Henry Wotton, he acted a wise part in distrusting it; and we rejoice that the sacred name of Kepler was thus withheld from the long list of distinguished characters whom England has starved and dishonored."—(p. 343.)

It would far exceed the limits we have now left, and it is not by any means within the scope of our intention, to enter upon a discussion of the question pointed at in this startling allegation. In the long list of distinguished characters whose names have shed a lustre on British science during the last two or three centuries, there are, indeed, many whose success in the world has fallen far short of their merits; but to represent them as having been dishonored in not being the recipients of pecuniary supplies from the public treasury, is to make use of a strong, if not a perverse figure of speech. Science in England, has not, it is true, been fostered by state provisions; yet if we look to results, our system (if it may be so called) cannot be pronounced to have been unsuccessful; for on reference to the history of the great and fundamental discoveries by which the various sci-

ences have been advanced to their present state, it will not assuredly be found that England has any reason to blush for her share of them. That science has derived some important benefits from the pensioned academies which have been instituted and maintained by some of the continental governments, is a proposition which it would be idle to dispute: but such establishments are little in harmony with our political institutions; and in proportion as wealth and intelligence are more generally diffused, they become more and more unnecessary. A British institute, maintained at the public expense, while it might perhaps provide for a few meritorious individuals, would, it is to be feared, give rise to much jobbing and jealousy; and would neither accelerate the progress of science, nor lessen the number of its martyrs.

We must now take leave of this publication. Considering the eminent station its author has long occupied among European philosophers, and the number and importance of his contributions to some of the highest and most difficult branches of physical inquiry, it cannot add to his reputation. It was probably undertaken as a relaxation from more severe labor, and regarded by him as of no great importance. We confess, however, that we look upon it in a different light. Next to labors which tend to enlarge the existing boundaries of knowledge, the most useful service, perhaps, which can now be rendered to science, is the faithful exposition of the discoveries and claims of its greatest benefactors; for, after all, the hope of receiving the approbation and applause of future ages is the best and most honorable incentive to scientific enterprise. It is also of no small importance to the student, that the methods of the original discoveries should be reviewed from time to time by those who, starting from a higher vantage-ground, have succeeded, like the present author, in going far beyond them in the same paths of inquiry; for it is thus that the connection between the different states of a science, and the continuity of the chain of discovery, are best preserved and made evident. For these reasons, we look upon the work, moderate as it is in extent, as calculated to do good service to the cause to which its author has so successfully consecrated his life and his labors.

FLOWERS are made the type of what is fading; but the moralist does not look deep enough—the seed of the flower is forever reproduced, and, as we so often see, retains its vitality for ages. A pea taken from a vase found in an Egyptian sarcophagus, and supposed to be 2,844 years old, has germinated in the garden of Mr. Grimstone, at Highgate, and there are now nineteen pods on it. The flower of the pea was white, but of a peculiar form. So, if these nineteen podfuls were cooked, the Englishmen of the nineteenth century would eat with his lamb peas *one* generation later than the peas that fed the Egyptian in the days of hieroglyphics!

## LINES TO THE MEMORY OF AN IDIOT GIRL.

Who, helpless, hopeless being, who  
Shall strew a flower upon thy grave;  
Or who from mute oblivion's power  
Thy disregarded name shall save!

Honor and wealth and learning's store  
The votive urn remembers long,  
And e'en the annals of the poor  
Live in the bard's immortal song.

But a blank stone best stories thee  
Whom wealth, nor sense, nor fame would find.  
Poorer than aught beside we see,  
A human form without a mind—

A casket gemless! yet for thee  
Pity shall grave a simple tale,  
And reason shall a moral see,  
And fancy paint for our avail.

Yes, it shall paint thy hapless form,  
Clad decent in its russet weeds,  
Happy in aimless wanderings long,  
And pleased thy father's flock to feed.

With vacant, artless smile thou bore,  
Patient, the scoffer's cruel jest.  
With viewless gaze could pass it o'er  
And turn it pointless from thy breast.

Though language was forbid to trace  
The unformed chaos of thy mind,  
And thy rude sound no ear could guess  
Save through parental instinct kind;

Yet unto every human form,  
Clings imitation, mystic power!  
And thou wert fond and proud to own  
The school-time's regulated hour,

And on the mutilated page  
Mutter the mimic lesson's tone,  
And, e'er the school-boy's task was said,  
Brought ever and anon thy own.

And many a truant boy would seek  
And drag reluctant to his place—  
And oft the master's solemn rule  
Would mock, with grave and apt grimace.

And every guileless heart would love  
A nature so estranged from wrong—  
And every infant would protect  
Thee from the passing traveller's tongue.

Thy primal joy was still to be  
Where holy congregations bow,—  
Rapt in wild transport when they sung—  
And when they prayed would bend thee low.

O Nature! whereso'er thou art,  
Some latent worship still is there—  
Blush ye, whose form without a heart,  
The idiot's plea can never share.

Poor guiltless thing! these eighteen years  
Parental care had reared alone—  
Then, lest thou e'er should want their care,  
Heaven took thee spotless to its own.

For many a watching eye of love  
Thy sickness, and thy death did cheer;  
Though reason weeps not, she allows  
The instinct of a parent's tear.

Poor guiltless thing! forgot by man,  
The hillock's all remains of thee!—  
To merely mortal man it may—  
But faith another sight can see.

For what a burst of mind shall be  
When disencumbered from this clod,  
Thou, who on earth couldst nothing see  
Shall rise to comprehend thy God!

Oh! could thy spirit teach us now,  
Full many a truth the gay might learn—  
The value of a blameless life  
Full many a sinner might discern!

Yes! they might learn, who waste their time,  
What it must be to know no sin;  
They who pollute the soul's sweet prime,  
What to be spotless, pure, within!

Whoe'er thou art, go seek her grave,  
All ye who sport in folly's way;  
And as the gale the grass shall wave,  
List to a voice that seems to say—

“'Tis not the measure of thy powers  
To which th' eternal meed is given—  
'Tis wasted or improved hours  
That forfeit or secure thy heaven.”

*The Day Hours of the Church, with the Gregorian Tones.* Part I. Containing the Ordinary Offices through the week.

AN arrangement of certain Psalms, Collects, Hymns, &c., to be repeated throughout the week by devout church-people, at Lauds, Prime, Tierce, Sext, Nones, Vespers, and Compline,—that is to say, every day and all day long. The curious feature of this book is the attempt to restore, in chanting the Psalms of the Reformed Church, the monotonous unison of the Gregorian tones. This music, however venerable and fine in itself, is so decidedly characteristic of the Romish ritual, that its adoption would justify the worst fears as to the ulterior designs of a certain not unimportant Church party. A finer or truer standard of ecclesiastical music than exists in Boyce's Cathedral Services cannot be found; and our church-performances, where they want improvement, need look no higher.—*Spectator*.

*The Vital Statistics of Glasgow.* By ALEXANDER WATT, LL.D., &c.

THIS is a very elaborate and useful publication, reflecting great credit on the Corporation of Glasgow, and their city statist Dr. Watt. It exhibits, in minute detail, and in many varieties of phase, the deaths and marriages in the city, and the births so far as they are recorded. The deaths are more especially elaborated; not as a matter of mere singular display, but with a view to get at the physical laws which appear to govern the amount of deaths at different ages, from the different diseases. The causes of the excess of mortality in certain districts over other districts, and of one locality over another in the same district, are also investigated. Among these causes, Dr. Watt mentions drainage and ventilation as important: he assigns a good deal to want of cleanliness, to intemperance, and something to atmospheric influence, but more than all to destitution. It is remarkable how disease and mortality increase with distress or bad times; the increase appearing to fall upon the destitute.—*Spectator*.

From the Examiner.

*Essays on Natural History, chiefly Ornithology.* By CHARLES WATERTON, Esq., author of "Wanderings in South America." Second series: With a Continuation of the Autobiography of the Author. Longman & Co.

It gives us hearty pleasure to meet with Mr. Waterton again. To miserable mortals "close in populous cities pent," his books are as a vigorous autumn air. He hints that this may be his last. But he must write many more before he comes to any such determination, and after he has come to it, break it as soon as may be. He is a charming writer. Candid, cordial, good-hearted, and full of the most masculine sympathies.

Mr. Waterton's *Autobiography* will rank with the most piquant and comprehensive pieces of that kind of writing in the language. The principal matters described in the present Continuation are a journey to the continent, and a shipwreck off the Isle of Elba. But we read also, with the greatest satisfaction, that the premises at Walton Hall are at last effectually cleared of every Hanoverian rat, young and old; Hercules having once more proved himself more than a match for Cacus.

We called Mr. Waterton's last little book of *Essays*, a bill for the relief of animal disabilities, and we say the same of its successor. The persecuted and defamed of the dumb creation continue to find their champion and defender in Mr. Waterton. To the cases of the Barn Owl, the Starling, the Hedgehog, the Magpie, the Raven, the Jay, and the Cormorant; to say nothing of such matters as heretic denials of nose to the vulture, of natural appetite to the crocodile, and of reasonable courage to the alligator; we have now to add defences of the Toad and the Polecat. Let us hear what the charity of Mr. Waterton can suggest on these uninviting subjects. If he is a good hater on some points he is a good lover on many more; and in what appears deformity to vulgar observers of nature he knows where to find a beauty and a fitness. So pays he back with interest the gratitude he owes her, for the intimate friendship and communion in which he has passed his life.

#### THE TOAD.

"That poor, despised, and harmless reptile, is admirable in its proportions, and has an eye of such transcendent beauty, that when I find one I place it on my hand to view it more minutely. Its skin, too, so completely adapted to the subterraneous places into which it goes for shelter, is well worthy the attention of the philosopher. As this little animal is innocuous, I feel sorry when I see it trampled under foot by inconsiderate people, who have learned from their grandmothers that it is full of venom."

#### A WORD FOR THE POLECAT.

"On being told that this ill-scented animal discharges a 'fluid given him by Nature as a defence,' I cannot refrain from asking, by what power of intuition the polecat is convinced that a smell, naturally agreeable to itself, is absolutely intolerable to man? Did birds and beasts speak

an intelligible language, as they are said to have done in the days of Ovid, we should get at their true history with greater ease; and our ornithology would be much more free from the romance which at present pervades it. \* \* \* \* The stinking polecat, shunned by most people and persecuted by everybody, presents to our view a symmetry of no ordinary beauty. The length of his body is wonderfully well adapted to that of his neck; and when he carries his prey, there is such a stateliness in his whole contour, that it is impossible not to be struck with the elegance of his motions."

Somebody considered these very bad tastes, and thought to condemn them properly by comparing Mr. Waterton to a carrion crow. But comparison with a bird of even such notoriously bad character and filthy habits did not disturb Mr. Waterton. He contented himself, speaking in the character of the crow, with thanking the somebody aforesaid for a store of tainted food supplied in his *Biography of Birds*. The attack is not likely to be repeated.

The truth is that Mr. Waterton has the better of all his opponents on points of this kind. None of them have his amount of keen and original observation; few have studied nature so closely with their own eyes; none, under whatsoever roughness of speech disguised, can speak of all her works with such a hearty tolerance and large good will. His books, with little of the learned pretences, have a store of cheerful wisdom in them which yields unfailing instructiveness and pleasure.

"When we talk of this ugly animal, or of that deformed reptile, or of such a pernicious insect, the true solution of these remarks is, that we avoid the bear because he would hug us to death; that we dread the cayman because he would swallow us; and that we abhor the bug on account of its bite and unsavory smell. Still, whilst we are examining these animals as they lie dead before us, we may remark with the monster Nero, treading over his own prostrate mother, we did not think that they had been so handsome. In our rambles up and down this globe, when we fall in with animals whose shape appears to us either defective or deformed, and whose habits cannot be accounted for, we may lay it down to a certainty, that the work of our great Creator is perfect in all its parts; and that we are at a loss how to turn it to our profit, solely because we have not spent a sufficient time at school, in the instructive field of nature."

On the other hand, truth will not let him leave a popular tradition uncontradicted, however favoring to his favorites it may be. The song of the swan, for instance. Dear as his *Ovid* is, and still read with boyish ardor as he sits up in trees, he is forced to object to the song of

#### THE DYING SWAN.

"Once I had an opportunity, which rarely occurs, of being with a swan in its last illness. Although I gave no credence to the extravagant notion which antiquity had entertained of melody from the mouth of the dying swan, still I felt



anxious to hear some plaintive sound or other, some soft inflection of the voice, which might tend to justify that notion in a small degree. But I was disappointed.

"This poor swan was a great favorite, and had been the pride of the lake time out of mind. Those who spend their life in the country, and pay attention to the ordinary movements of birds, will easily observe a change in them, whenever their health is on the decline. I perceived that the plumage of this swan put on a weather-beaten appearance, and that the bird itself no longer raised the feathers of his wings, as he passed through the water before me. Judging that he was unwell, I gave orders that he should be supplied with bread and boiled potatoes. Of these he ate sparingly, and in a day or two he changed his quarters, probably for want of sufficient shelter from the wind. Having found his way down to the stables, he got upon a small fishpond there, out of the reach of storms. From this time he never fended for food, but he continued to take a little white bread now and then from my hand. At last he refused this; and then he left the water for good and all, and sat down on the margin of the pond, with evident signs of near-approaching death. He soon became too weak to support his long neck in an upright position. He nodded, and then tried to recover himself, and then nodded again, and again held up his head; till at last, quite enfeebled and worn out, his head fell gently on the grass, his wings became expanded a trifle or so, and he died whilst I was looking on. This was in the afternoon, and I had every facility of watching his departing hour, for I was attending the masons, some thirty yards from the pond to which the swan had retired. He never even uttered his wonted cry, nor so much as a sound, to indicate what he felt within."

It is gratifying to learn from Mr. Waterton, in a subsequent passage, that all the inconsistent and unaccountable actions of this world are not the exclusive property of the human being.

"Whilst I am actually writing this, there are two geese on the lawn before me. One of them is a Canada goose, the other a barnacle gander. The latter is about half the size of the former. Notwithstanding this disparity, the old fool of a goose has taken the insignificant little fellow into connubial favor, although there are four-and-twenty others of the Canada species here, from which she has it fully in her power to make a more profitable choice. Singular to tell, this is the third year that these infatuated simpletons have paired, and the goose laid eggs, without any chance of a progeny. And, in high quarters, sometimes unions take place, where the husband is ignorant of the language of his wife, and the wife of that of her husband. \* \* \* My tom-cat, apparently an excellent mouser, will sometimes prefer a dry biscuit to a mutton chop. Sterne's ass seemed to relish macaroon. Did all asses relish macaroon, we might doubt the fitness of the Spanish proverb, 'La miel no es para la boca del asno.' Honey is not made for the mouth of the ass. Parrots in cages will pull off their own feathers, and eat them by the dozen. Blackbirds, although on very short allowance, caused by the frosty weather, would not touch their favorite ivy berries, which were thrown down in abundance for them in the garden of my friend, Mr. Loudon of Bayswater. I

knew a healthy old owl who took her confinement so much to heart that she refused all kind of food, and died at last for want of it. And, when I was in the Mediterranean Sea, I saw a brute in the shape of a man, swallow pieces of raw fowl (which he had torn asunder, feathers and all,) with as much avidity as Sir Robert Peel devours our incomes."

In a later page of the book, we must not omit to add, *amende* is made to little Barnacle. All the eggs of which he is parent do not prove addle. The exertions of the faithful couple are rewarded at last; the unpromising choice of the old fool of a Canadian vindicated; and Mr. Waterton obliged good-humoredly to confess that he stands convinced by a hybrid, reprimanded by a gander, and instructed by a goose.

"Last year this incongruous though persevering couple visited the island again, and proceeded with the work of incubation in the same place, and upon hay which had been purposely renewed. Nothing could exceed the assiduity with which the little Barnacle stood guard, often on one leg, over his bulky partner, day after day, as she was performing her tedious task. If anybody approached the place, his cackling was incessant; he would run at him with the fury of a turkey-cock; he would jump up at his knees, and not desist in his aggressions until the intruder had retired. There was something so remarkably disproportionate betwixt this goose and gander, that I gave to this the name of Mopsus, and to that the name of Nisa; and I would sometimes ask the splendid Canadian Nisa, as she sat on her eggs, how she could possibly have lost her heart to so diminutive a little fellow as Barnacle Mopsus, when she had so many of her own comely species present, from which to choose a happy and efficient partner.

"The whole affair appeared to be one of ridicule and bad taste; and I was quite prepared for a termination of it, similar to that of the preceding years, when behold! to my utter astonishment, out came two young ones, the remainder of the five eggs being addle.

"The vociferous gesticulations and strutting of little Mopsus were beyond endurance, when he first got sight of his long-looked-for progeny. He screamed aloud, whilst Nisa helped him to attack me with their united wings and hissings as I approached the nest in order to convey the little ones to the water; for the place at which the old birds were wont to get upon the island lay at some distance, and I preferred to launch them close to the cherry-tree, which done, the parents immediately jumped down into the water below, and then swam off with them to the opposite shore. This loving couple, apparently so ill-assorted and disproportionate, has brought up the progeny with great care and success. It has now arrived at its full growth, and is in mature plumage. \* \* \* I am writing this in the middle of February. In a fortnight or three weeks more, as the breeding season approaches, perhaps my little Mopsus and his beauteous Nisa may try their luck once more, at the bole of the superannuated cherry-tree. I shall have all in readiness, and shall be glad to see them."

We must place beside this picture of family

love a subject of fierce hatred equally worthy of the master. Edwin Landseer never painted a picture more finely characteristic, more spirited and dramatic, than this of

#### A HARE FIGHT.

"On Easter Sunday, in the afternoon, as I was proceeding, with my brother-in-law, Mr. Carr, to look at a wild-duck's nest in an adjacent wood, we saw two hares fighting with inconceivable fury on the open ground, about a hundred and fifty yards distant from us. They stood on their hinder legs like two bull-dogs resolutely bent on destruction.

"Having watched them for about a quarter of an hour, we then entered the wood;—I observing to Mr. Carr that we should find them engaged on our return.

"We staid in the wood some ten minutes, and on leaving it, we saw the hares still in desperate battle. They had moved along the hill side, and the grass was strongly marked with their down for a space of twenty yards. At last, one of the sylvan warriors fell on its side, and never got upon its legs again. Its antagonist then retreated for a yard or so,—stood still for a minute, as if in contemplation, and then rushed vengefully on the fallen foe. This retreat and advance was performed many times;—the conqueror striking his prostrate adversary with its fore feet, and clearing off great quantities of down with them.

"In the mean time, the vanquished hare rolled over and over again, but could not recover the use of its legs, although it made several attempts to do so. Its movements put you in mind of a drunken man trying to get up from the floor, after a hard night in the ale-house. It now lay still on the ground, effectually subdued; whilst the other continued its attacks upon it, with the fury of a little demon. Seeing that the fight was over, we approached the scene of action,—the conqueror hare retiring as we drew near.

"I took up the fallen combatant just as it was breathing its last. Both its sides had been completely bared of fur, and large patches of down had been torn from its back and belly. It was a well-conditioned buck hare, weighing, I should suppose, some seven or eight pounds.

"Mr. Carr's groom was standing by the stable door, as I came up with the hare in my hand. Here, John, said I, take this to your own house, and get your wife to dress it for your family;—it is none the worse for being killed on Easter Sunday:—and then I told him how it had come into my possession. He thanked me kindly for it; and I learnt from Mr. Carr, at the end of the week, that John's wife had made it into a pie, with the addition of a few rashers of bacon;—that it proved to be uncommonly good;—and that they would all remember, for many years to come, the fight betwixt the two hares in the park at Walton Hall, on Easter Sunday afternoon, the 16th of April, 1843."

Our last extracts are from the *Autobiography*.

#### CONTINENTAL NUISANCES.

"There are many things in Rome which offend our English feelings, although the natives do not seem to be at all affected by them. Thus all the spouts send down torrents of water from the eaves of the houses into the streets below, inflicting a deluge on those who have not learned the art of threading their way successively through the spaces which intervene betwixt the descending torrents.

Many a time have I received on my shoulders this annoying fall of water. The streets, too, are abominably filthy with offensive matter, causing a nuisance which would not be tolerated for a single day in an English town; and within the entrance door of many of their dwellings there may be seen a pool which loudly calls for the mop, if the purity of ladies' flounces be an object worthy of attention. Again; the kitchens of these Italians appear as though they had never once been whitewashed since the days of Ancient Rome; whilst their cooking utensils are, at times, none of the most cleanly. A friend of mine had ordered an omelet for supper. His servant, on going accidentally into the kitchen, saw the cook preparing it in a kind of thing which I dare not exactly describe. But the reader will understand me when I inform him that the filthy rascal, not having a proper kitchen-pan at hand, had actually been up into the bedroom for a substitute. Our English maid once expressing a wish for a culinary utensil, in order to pour some broth into it, the Italian servant had one in her eye which would just suit. She went and brought the brass pan in which we regularly washed our feet."

#### THE BIRD-MARKET OF ROME.

"I fear the world will rebuke me when I tell it, that, instead of ferreting out antiquities and visiting modern schools of sculpture and of painting, I passed a considerable portion of my time in the extensive bird-market of Rome. I must however remark, that the studio of Vallati, the renowned painter of wild boars, had great attractions for me; and I have now at home, a wild boar done by him in so masterly a style, and finished so exquisitely, that it obtains unqualified approbation from all who inspect it.

"The bird-market of Rome is held in the environs of the Rotunda, formerly the Pantheon. Nothing astonished me more than the quantities of birds which were daily exposed for sale during the season; I could often count above four hundred thrushes and blackbirds, and often a hundred robin red-breasts in one quarter of it; with twice as many larks, and other small birds in vast profusion. In the course of one day, seventeen thousand quails have passed the Roman custom-house; these pretty vernal and autumnal travellers are taken in nets of prodigious extent on the shores of the Mediterranean. In the spring of the year and at the close of summer, cartloads of ringdoves arrive at the stalls near the Rotunda. At first the venders were shy with me; but as we got better acquainted, nothing could surpass their civility, and their wishes to impart every information to me; and when they had procured a fine and rare specimen, they always put it in a drawer apart for me. These birdmen outwardly had the appearance of Italian banditti, but it was all outside and nothing more; they were good men notwithstanding their uncouth looks, and good Christians too, for I could see them waiting at the door of the church of the Jesuits, by half-past four o'clock on a winter's morning, to be ready for the first mass."

We close the book reluctantly. We should like to have given its protest against the philanthropy of the New Chimney Sweeping Act. Mr. Waterton's proposition to transform into geese the legislative Solons who distinguished themselves by that measure, and to condemn them to pass down our

chimneys once a month to do the needful with their wings and beaks, has our friendly concurrence. We have not quoted the half of what we had marked; but enough, we think, to interest the reader heartily. Mr. Waterton's plain-speaking candor would almost give credibility to a Catholic marvel. His own absolute belief of what he tells, you can never doubt, whether Catholic or Protestant. Let us add that his love to his old fallen faith we respect; though, with other views of the hopes and history of man, we cannot profess to sympathize with the forms of devotion it assumes.

It only remains for us to give the reader one more decisive reason why he should purchase this pleasing little volume. It is, says Mr. Waterton, "an unsolicited donation to the widow of my poor departed friend, Mr. Loudon, whose vast labors in the cause of science have ensured to him an imperishable reputation. If this trifling present on my part shall be the means of conveying one single drop of balm to the wound which it has pleased Heaven lately to inflict on the heart of that excellent lady, my time will have been well employed, and my endeavors amply requited."

#### THE POST-OFFICE INQUIRY.

THE committee of secrecy appointed by the House of Commons "to inquire into the state of the law in respect of the detaining and opening of letters at the general post-office, and into the mode under which the authority given for such detaining and opening has been exercised," presented their report to the House on Monday. It is an elaborate document, filling some fifteen pages of the parliamentary folio.

The committee trace the history not only of the practice of intercepting letters, but of the origin and earlier growth of the post-office; in the nature of which the practice took its rise. In these inquiries they have been assisted by Sir Francis Palgrave, of the rolls office, Mr. Lechmere and Mr. Leman, of the state paper office, and Mr. Reeve, of the council office.

The precise period when the crown first undertook to carry letters for its subjects does not appear. At first, messengers or runners, called "the posts," were employed to carry the royal despatches, at home and abroad; then they carried letters for the convenience of persons in the royal court. The first "master of the posts" was Brian Tuke, who held the office in 1516 and also in 1533. It was granted, by a succession of patents, to other persons, throughout the reigns of Henry the Eighth, Elizabeth, James the First, and Charles the First.

"With regard to correspondence conveyed by other messengers than their own, our monarchs viewed it with great suspicion; but it was especially towards letters arriving from or going to parts beyond the seas that their vigilance seems to have been directed. The frequency of disputed successions to the crown, and the constant jealousy entertained of the court of Rome, will assist in explaining their desire to prevent such correspondence. All letters coming from beyond the seas were directed to be seized; but in the time of Edward the second, to whose reign the first record of this kind belongs, the king's bailiffs, in assisting

the admiral of the fleet to search for letters, were forbidden under the pretext of such powers to attack or oppress any merchants or others crossing the seas. The open seizure by Wolsey, in 1525, of the despatches sent from this country by the ambassador of the Emperor Charles the fifth, is a proof of the extraordinary jealousy with which foreign correspondence was regarded, and of the vigilance with which it was watched." When the office of master of the posts was granted by Elizabeth, in 1590, to John Stanhope, a royal proclamation prohibited "all persons whatsoever from gathering up, receiving, bringing, or carrying out of the realm, any letters or packets, without the allowance of the masters and controllers of the posts, or their deputies." Similar prohibitions are contained in the proclamations announcing the appointment of new postmasters in the two subsequent reigns. "The practice probably began at an early period, and afterwards grew into a regular custom, of allowing private persons to avail themselves of the king's posts for transmitting their correspondence. This probably became a perquisite to the postmasters; while at the same time it gave to ministers of state the power of narrowly inspecting the whole of the written communications of this country."

In 1619, a new patent office, that of "postmaster of England for foreign parts," was created, and bestowed on Matthew De Quester. Between him and Lord Stanhope, the "king's postmaster" under the old form of patent, arose much litigation; which terminated in the retreat of Lord Stanhope. In the course of the dispute, the merchants of London were permitted to send their letters beyond seas by their own messengers. Sir John Coke, however, objected to that license; saying, in a letter to Lord Conway, his co-secretary of state, that his colleague "best knew what account they shall be able to give in their places of that which passeth by letters in or out of the land, if every man may convey letters, under the covers of merchants, to whom and what place he pleaseth," &c. The privilege, with very stringent conditions, was afterwards limited to the company of merchant adventurers, and only for their own letters. "De Quester's patent came into possession of one Thomas Witherings, who suggested to the crown a plan for the entire re-organization of the inland posts, which, instead of producing at that time any revenue to the state, were a burden to it of 3,400*l.* per annum. The plan proposed consisted essentially of three parts,—the establishment of fixed rates of postage; substituting horse-posts, which were to travel at the rate of one hundred and twenty miles in twenty-four hours, instead of foot-posts, which travelled at the rate of eighteen miles, and giving to the public generally the use of the post-office. This plan was adopted; Witherings was appointed to the office; and thus became centered in the same person the offices of postmaster for inland and for foreign letters. In 1635 and 1637 appeared two proclamations, to notify and give effect to the new plan of Mr. Witherings; and in both these there were clauses prohibiting any other than Mr. Witherings or his deputies from carrying letters."

It is needless to trace the succession to the patent, or the conflicting pretensions to it that arose. The validity of the clause in the grant to Witherings of the inland letter office, prohibiting any but the persons appointed by the patentee from receiving or delivering letters at any place where the patentee should settle posts, was brought in ques-



tion, in 1646, before a committee of the House of Lords. Two of the judges were appointed assistants to the committee, and pronounced the restrictive clauses to be "void and not good in law." The foreign letter office patent was not referred to the committee. Acting on that decision, in 1650, the common council of London, dissatisfied with the government weekly posts, established posts twice a week on several roads, and on the whole of the line to Scotland. On a report to that effect from the council of state, the parliament resolved, "that the offices of postmasters, inland and foreign, are and ought to be in the sole power and disposal of the parliament;" and they referred it to the council of state to consider how those offices might best be settled; and in the mean time to take orders for the present management thereof.

In 1657, Cromwell caused parliament to pass a bill for improving the post-office; and at the restoration it was farmed by Henry Bishopp, at a rent of 21,500*l.* a year. A bill of 1660 reenacted the act of 1657; and no other statute on the subject passed until the reign of Queen Anne. In the lease to Bishopp, the power of inspecting and surveying letters within the post-office was reserved to the secretaries of state; and in the lease to Bishopp's successor, O'Neale, occur words nearly corresponding with those in the statute of Anne—all officers of the post-office are forbidden to open or detain letters, "except by the immediate warrant of our principal secretaries of state."

"In reviewing that period of the history of the country which commences with 1641, your committee beg to notice the following incidents, as bearing on the subject of their inquiry. Repeated stoppages of the foreign mails were made by the orders of the two Houses; and committees were appointed, composed of the members of both Houses, to open and read the letters stopped. On one of those occasions, Mr. Pym reported the answer of the Lords to a message from the Commons to stop the foreign mails, 'that they did yield to the opening of letters; but it would be very inconvenient if often used.'

"The opening and detention of the letters coming from France and Antwerp, in November, 1641, led to a complaint to the King and to the Lords from the ambassador of the republic of Venice.

"The preamble to the act of Cromwell's parliament for settling the postage of England, Scotland, and Ireland, enumerates among the advantages of the post, that it is the best means to 'discover and prevent many dangerous and wicked designs which have been and are daily contrived against the peace and welfare of the commonwealth, the intelligence whereof cannot well be communicated but by letter of escript.'

"It scarcely needed this evidence to prove that during the protectorate recourse was had to the expedient of opening letters. This fact is sufficiently apparent from the number of letters designated as 'intercepted letters,' in the state correspondence of Secretary Thurloe.

"Although, after quoting the cited clauses from the leases granted to Bishopp and O'Neale, and the words from the proclamation of 1663, no reasonable doubt can be entertained that the governments of the different monarchs who reigned between 1660 and 1711 had frequently recourse to the practice of opening letters, yet the only instance during that period that has come under the notice of your committee is that of Coleman, one of the victims of the Popish plot."

The committee now come to the period subse-

quent to the passing of the 9th of Anne, the first statute which recognized the practice of opening letters, now under consideration. But they first notice several occasions in the last century on which, both in parliament and in courts of judicature, this practice was brought distinctly under public attention. "About eleven years after the passing of the act, namely in the year 1722-3, in the course of the proceedings had on passing the bills of pains and penalties against the Bishop of Rochester and his two associates Kelly and Plunket, the principal evidence adduced against the parties accused was that of post-office clerks and others, who, in obedience to warrants from the secretary of state, had detained, opened, copied, and deciphered letters to or from those parties. In the committee on the bill against Atterbury, in the House of Peers, the clause of the statute of Anne was referred to and commented on by the bishop's counsel, who raised a doubt whether the copying of a letter were sanctioned by the act; but in no one of these three cases was any question raised as to the legality of the warrants." In 1735, several members of the Commons complained that their letters had been opened; and the House resolved that it was a high breach of privilege to open letters to members, without a warrant under the hand of one of the principal secretaries of state "for every such opening and looking into."

In 1742, the secret committee appointed "to inquire into the conduct of the Earl of Orford, during the last ten years of his being first lord of the treasury and chancellor and under-treasurer of his majesty's exchequer," gave a description of the establishment for inspecting letters, as maintained by the governments over which Sir Robert Walpole had presided; but abstained from stating on what particular occasions that establishment had been made available. It appears from the information laid before your committee, that under the pressure of the rebellion of 1745, which followed almost immediately on the downfall of the administration of Sir Robert Walpole, his successors issued warrants for stopping and opening post-letters, of a very general and unlimited character.

"In the year 1758, Dr. Hensley, a physician, was tried on a charge of high treason, being accused of a treasonable correspondence with the enemy. The principal evidence on which he was convicted was that of a letter-carrier and a post-office clerk; the latter of whom had opened Dr. Hensley's letters, and delivered them to the secretary of state."

The last instance in which the power was exercised under circumstances of public notoriety was in 1795, in the case of Horne Tooke: a letter by Mr. Tooke to Mr. Joyce was intercepted, led to his arrest, and was produced in evidence. "It is now so long since any public trial has taken place, in which facts ascertained by opening and detaining letters at the post-office have been adduced in evidence, that it seems to have been nearly forgotten by the public that such a practice ever existed."

The committee now "proceed to show, from evidence of a more secret and confidential nature, to what extent this practice has been carried on, by the same authority, during the past and present centuries. Before entering, however, on this head of inquiry, they consider it proper to observe, that they have had before them, with few exceptions, every person now living who has held the seals of secretary of state for home or foreign affairs since the year 1822, as well as two noblemen

who have discharged the office of lord-lieutenant of Ireland, and several persons who have held confidential situations under them; and they have further examined the present postmaster-general, the secretaries of the post-office for England and Ireland, together with several of the most confidential officers in every branch of the foreign office, the home office, and the post-office; and that all these witnesses, without exception, have made to your committee the most full and unreserved disclosures; so much so as to have rendered it superfluous for your committee to examine any other witnesses."

They give the subjoined tables, with the remark that the earlier records of the warrants issued are very imperfect; as is known by the fact that many of the cases mentioned above are *not* included in the records which exist—such as those of Atterbury, Plunket, Kelly, Hensey, and Horne Tooke. From 1799, the records are fuller; but Earl Spencer was the first to introduce the custom of recording the warrants in a book, not belonging to the secretary of state personally, but to the office.

ANNUAL NUMBER OF WARRANTS IN EACH YEAR, FROM 1712 TO 1798, SO FAR AS AN ACCOUNT OF THE SAME COULD BE MADE UP.

Year.	Number of Warrants.	Year.	Number of Warrants.	Year.	Number of Warrants.
1712	1	1744	3	1768	1
1713	2	1745	7	1770	3
1723	1	1746	1	1772	1
1730	1	1749	1	1773	1
1731	2	1751	1	1774	2
1734	3	1752	1	1776	1
1735	4	1753	6	1777	2
1736	3	1754	1	1778	2
1737	3	1755	1	1782	3
1738	7	1756	1	1783	1
1739	5	1763	3	1784	1
1740	1	1764	1	From 1788	6
1741	4	1765	1	to 1799	6
1742	2	1766	4		
1743	4	1767	2	Total	101

The above warrants classed under certain heads:—Bank of England, 8; bankruptcy, 5; murder, theft, fraud, &c., 14; prisoners of war, 1; revenue, 10; foreign correspondence, 35; treason, sedition, &c., 5; libel, 2; forgery, 1; debtor absconding from creditors, 2; private case, 1; uncertain, 17. Total, 101.

ANNUAL NUMBER OF WARRANTS IN EACH YEAR FROM 1799 TO 1844.

Year.	Number.	Year.	Number.	Year.	Number.
1799	9	1815	2	1831	17
1800	11	1816	0	1832	5
1801	7	1817	11	1833	4
1802	6	1818	9	1834	6
1803	7	1819	6	1835	7
1804	2	1820	6	1836	7
1805	7	1821	1	1837	4
1806	9	1822	12	1838	8
1807	13	1823	7	1839	16
1808	2	1824	2	1840	7
1809	11	1825	6	1841	18
1810	6	1826	8	1842	20
1811	8	1827	8	1843	8
1812	28	1828	4	1844	7
1813	8	1829	5		
1814	3	1830	14		372

Total number of persons named in the above warrants, 724.

This would give a little more than eight warrants, on the average, per year, and about two persons, on the average, for each warrant. Among the warrants there are eight, applied each to some particular object, but not restricted to any definite number of persons.

The above warrants classed under certain heads—Bank of England, 13; bankruptcy, 2; murder, theft, fraud, &c., 144; treason, sedition, &c., 77; prisoners of war, 13; revenue, 5; foreign correspondence, 20; letters returned to writers, 7; address copied, 1; forged frank, 1; uncertain, 89. Total, 372.

The secretaries of state who have signed the warrants referred to in the two preceding abstracts, are named in the following list, arranged in the order of date.

1712-13, the Earl of Dartmouth. 1713, the Right Hon. Wm. Bromley. 1722, Lord Viscount Townshend. 1730-46, Lord Harrington. 1735-1754, Duke of Newcastle. 1749, Duke of Bedford. 1752-3, the Earl of Holderness. 1755, the Right Hon. Sir T. Robinson. 1756, the Right Hon. H. Fox. 1763, the Earl of Halifax. 1765-7, Right Hon. Gen. Conway. 1766, Duke of Richmond. 1766-7, the Earl of Shelburne. 1770, the Earl of Sandwich. 1770-4, the Earl of Rochefort. 1776-7, Lord Viscount Weymouth. 1778, the Earl of Suffolk. 1782-3, Right Hon. T. Townshend. 1782, the Right Hon. C. J. Fox. 1784, Marquis of Carmarthen. 1799-1801, Duke of Portland. 1801-3, Lord Pelham. 1803, Right Hon. C. Yorke. 1804-6, Lord Hawkesbury, and 1807-9, 1806-7, Earl Spencer. 1807, Right Hon. C. W. W. Wynn. 1809-12, the Right Hon. R. Rider. 1812-21, Lord Viscount Sidmouth. 1822-30, the Right Hon. Sir R. Peel. 1822-3, Right Hon. G. Canning. 1823, Earl Bathurst. 1827, Lord Viscount Goderich. 1827, Right Hon. W. S. Bourne. 1827, Marquis of Lansdowne. 1830-4, Lord Viscount Melbourne. 1833-40, Lord Palmerston. 1834, Lord Viscount Duncannon. 1834, Duke of Wellington. 1834-5, Right Hon. H. Goulburn. 1835-9, Lord John Russell. 1838, Lord Glenelg. 1839-41, the Marquis of Normanby. 1841-4, Right Hon. Sir J. Graham. 1844, Earl of Aberdeen.

"Among the warrants of the last century," says the committee, "some few have been discovered that were issued on grounds which would now be considered highly objectionable, and would not be sanctioned by recent practice." Specimens are given. One by Lord Dartmouth, in September, 1712, directs the postmaster to send letters addressed to four persons named, to be sent to the commissioners of customs for their perusal, as desired by a Mr. Carkess; to "discover the effects" of the four persons. "In 1741, at the request of A., a warrant issued, to permit A.'s eldest son to open and inspect any letters which A.'s youngest son might write to two females, one of whom that youngest son had imprudently married. Two warrants, in 1734, are issued, each at the instance of the creditors of a party who has absconded; it not being alleged that any positive fraud had been practised. One, issued in 1735, appears to have arisen out of a political libel; another in 1755, concerns a noted political libeller of the day, Dr. Shebbear. One, in 1746, arises out of a robbery of bank-bills, the property of the chamberlain of the city of London: all letters sent by post to Hol-

land are to be examined; and if any letter appears to contain any of the stolen bills, it is to be opened; and on suspicion of any letter containing anything that may lead to a discovery, that letter is to be stopped, opened and inspected. Two warrants, in 1738, and one in 1741, concerning the practice, then in constant operation, of enlisting recruits in Ireland for the Irish brigade in France." In the eventful year of 1745, the Duke of Newcastle issued two *general* warrants, directing the postmaster-general to open and detain "all letters, packets, or papers," "suspected to contain matters of a dangerous tendency;" and a warrant signed "Thomas Townshend," dated in February, 1783, directs the postmaster-general to stop and open all letters addressed to Lord George Gordon, and by him to the northward.

"Coming to the warrants of the present century, your committee have noticed among them, issued during certain periods of the last war, some few of very general nature. In 1800 and 1801, orders were given to the postmaster-general to open all letters addressed to persons in France, Flanders, and Holland, and all letters addressed to Dover, supposed to contain letters addressed to France, Flanders, and Holland.

"As regards intestine commotion, your committee found that a warrant was issued in 1799, to open the letters of seventeen persons at Manchester and Birmingham; one in 1809, to open the letters of eighteen persons in Manchester and Liverpool. In 1812, warrants were directed to the several postmasters of Nottingham, Manchester, and Glasgow, directing them to open all such letters passing through these several post-offices as should appear to A. B. (naming in each warrant some particular individual) to be of a suspicious nature, and likely to convey seditious and treasonable information, or to contain money intended to be applied to the purpose of promoting seditious or other disturbances. A warrant, nearly similar to the preceding, was issued in 1813, to the postmasters of Wareham and Weymouth, in Dorsetshire, and one to the same purpose, in 1817, to the postmaster of Nottingham. Among the names of persons not now living, whose letters were directed to be opened previously to the year 1822, are found those of Despard, Thistlewood, and Watson; and that of Mr. Hunt, once member of parliament for Preston.

"With regard to the warrants issued during the last twenty-two years and a half, your committee have not observed among them a single warrant indefinite as to the number of persons coming within its scope. In every case the names are specified; and in one instance only does the number exceed six. \*

"During the outbreak in the manufacturing and mining districts which took place in August, 1842, in the week of the greatest anxiety a clerk was sent down from the London post-office, with directions, under the authority of a secretary of state's warrant, to open the letters of six parties named therein, all taking a prominent part in the disturbances of that period. In the same week, the same clerk was directed, under authority of two other such warrants, to open the letters of ten other persons named, and a fortnight later to open the letters of one other person; making seventeen in all. Most of the persons whose letters were ordered on this occasion to be opened were indicted, and many both indicted and convicted before the special commission appointed to

try the parties concerned in those disturbances. With *one exception*, these warrants were issued between the 18th and 25th of August, 1842; and they were all cancelled on the 14th of October.

"About the same time, two clerks were sent down to two provincial towns, each with directions, under authority of a secretary of state's warrant, to open and examine the letters addressed to one individual in each town; but in one of these cases there were no letters to open. One clerk employed on this duty returned to his ordinary business after a week's absence, the other after an absence of five weeks."

Two clerks were sent down to inspect letters addressed to one person in each of three towns during the disturbances in South Wales; one warrant was in force eighteen, the other seven days.

"It is these facts, probably, that have given rise to the report of a commission or commissions having visited the manufacturing districts charged with a general authority to open and inspect letters."

This brings the committee to the case of the warrant to open and detain the letters addressed to Mr. Mazzini. "This warrant was issued on the 1st of March, and cancelled on the 3d of June, in the present year. Throughout that period, the intercepted correspondence was transmitted unread from the home office to the secretary of state for foreign affairs. The facts of the case, so far as your committee feel themselves at liberty to disclose them, appear to be as follows. Representations had been made to the British government, from high sources, that plots, of which Mr. Mazzini was the centre, were carrying on upon British territory to excite an insurrection in Italy; and that such insurrection, should it assume a formidable aspect, would, from peculiar political circumstances, disturb the peace of Europe. The British government, considering the extent to which British interests were involved in the maintenance of that peace, issued, on their own judgment, but not at the suggestion of any foreign power, a warrant to open and detain Mr. Mazzini's letters. Such information, deduced from those letters, as appeared to the British government calculated to frustrate this attempt, was communicated to a foreign power; but the information so communicated was not of a nature to compromise, and did not compromise, the safety of any individual within the reach of that foreign power; nor was it made known to that power by what means or from what source that information had been obtained.

"A warrant to open and detain all letters addressed to Mr. Worcell and to Mr. Stolzman was issued on the 17th of April, 1844, and cancelled on the 20th of June. A warrant to open and detain all letters addressed to Mr. Grodieki at Paris, and to another foreign gentleman, was issued on the 3d of June, 1844, and cancelled on the 13th of the same month. The last two warrants rested on grounds connected with the personal safety of a foreign sovereign, intrusted to the protection of England. It appears to your committee, that, under circumstances so peculiar, even a slight suspicion of danger would justify a minister in taking extraordinary measures of precaution. The committee have not learned that there appeared in the letters that were detained anything to criminate the gentlemen whom the committee have very reluctantly named.

"The committee think it may be desirable for them to make known, that the above three war-



rants are the only warrants to open the letters of *foreigners* which the present government has issued."

Turning to general considerations, the committee divide the warrants issued during the present century into two classes,—those relating to the letters of ordinary criminals; and those relating to persons "suspected to be engaged in proceedings dangerous to the state, or (as in Mazzini's case) deeply involving British interests," whether at home or abroad. The first class of warrants originate in (! private) application to the under-secretary of state for the home department; the second originate in the home office itself. There is nothing very striking in this part of the report. The statement that whole mail-bags have been sent to the home office for examination is flatly contradicted. In 1795, when Holland was in occupation of the French army, the secretary of state detained *all* the mails to that quarter; and an act of parliament was passed to enable him to open the letters and return them to the writers,—a convenience which has at other times been desired by writers. The number of warrants issued under this head from 1799 to 1844 is seven, as stated in the abstract.

"The general conclusion which the committee draw from the returns before abstracted is, that in equal intervals of time these warrants have been issued in nearly equal number by the several administrations which have been in power from the commencement of 1799 until now. \* \* \* The general average of the warrants issued during the present century does not much exceed eight a year. This number would comprehend, on an average, the letters of about sixteen persons annually; but how many letters to and from each person coming within the scope of these warrants have on an average been opened, we have no means of estimating, since no record of the number of letters detained and opened under warrant has been kept by the post-office; but there is no reason to believe that number to be great; and the committee have ascertained that, in the case of many warrants, no letters whatever have been opened." The average number of days' duration for each warrant there is no means of ascertaining; but "it is probable that many a warrant had become inoperative long before the period when it was cancelled. In that respect there is a marked improvement in the practice of the present home secretary as compared with that of his predecessors; since the average duration of the warrants issued since September, 1841, does not exceed forty days, and in many cases it is as low as three or four days. From the abstract that has been given of the warrants issued in the present century, it appears that about two-thirds of them were criminal warrants; for by far the greater portion of those marked 'uncertain' appears to belong to this class.

"The letters which have been detained and opened are, unless retained by special order, as sometimes happens in criminal cases, closed and resealed, without affixing any mark to indicate that they have been so detained and opened; and are forwarded by post according to their respective superscriptions."

Other cases of the opening of letters, in the Dead Letter Office for instance, are mentioned, merely as not relating to the matter in hand. With the exception of such inevitable accidents in the machinery of a post, and the warrants already

specified, it appears that "the secrecy of correspondence is inviolate."

"Your committee will here notice a statement which has been made, that letter-bags from Dublin, Brighton, and other places, have of late, before being opened, been taken, out of the usual course, into an inner room of the inland office at the general post-office, for the purpose of being there examined. The allegation of fact is correct so far as counting the letters and observing their external appearance goes. This is frequently done in order to ascertain the condition of the bags on their arrival, before their contents are delivered over to be sorted; it having been found a necessary check upon the commission of irregularities by the subordinate functionaries of the post-office; but this examination has no connexion whatever with the opening of letters under warrant; and it is not the method practised when letters are detained and opened by authority of the secretary of state."

A brief statement is made as to the law and practice in Ireland; which do not differ materially from those in England. A table is given of thirty-one warrants issued by lords-lieutenant, secretaries, or lords justices, from 1832 to 1844, affecting sixty persons. In 1839, the warrants were nine in number, the persons sixteen; in 1840, warrants two, persons eleven; in 1841, warrants three, persons nine. A second table classifies them as follows:—crimes, murder, robbery, &c., fourteen; ribandism, twelve; sedition, &c., two; bankruptcy, one; forging a post-office stamp, one; letter returned to the writer, one; total, thirty-one. The lords-lieutenant and others who have signed these warrants are arranged in the following list, according to date:—

1832, Marquis of Anglesey. 1834, E. J. Littleton, (Sec.) 1831, Marquis Wellesley. 1835, Earl of Mulgrave. 1836, Earl of Mulgrave. 1836, T. Drummond, (Sec.) 1837, T. Drummond, (Sec.) 1837, Lord Plunkett, (L. J.) 1837, Archbishop of Dublin, (L. J.) 1838, Lord Morpeth, (Sec.) 1839, Marquis of Normandy. 1839, Lord Viscount Ebrington. 1839, Gen. Sir T. Blakeney (L. J.) 1841, Lord Viscount Ebrington. 1841, Chief Justice Bushe, (L. J.) 1841, Earl De Grey. 1842, Earl De Grey. 1842, Sir E. Sugden, (L. L.) 1843, Earl De Grey.

"The warrants issued in Ireland do not exceed three per annum on the average; each warrant comprehends on the average about two persons. The only warrant which bears the signature of the late Chief Justice Bushe, one of the lords justices, was issued with a view to obtain a clue to a murder; but it appearing that the magistrate to whom it was sent had applied for it for another purpose, that of ascertaining the state of the country, this was not assented to, and the warrant was not acted upon. \* \* \* More than a third of the warrants concern Ribandism, which were a peculiarly threatening aspect in one particular year. The letters in Ireland are not opened by the postmaster-general, but by a confidential clerk in the office of the chief-secretary for Ireland."

The committee submit their conclusions to the House. As to warrants in furtherance of criminal justice, averaging about six in the year, with no data as to their successful employment, they suggest a doubt whether it is worth while to continue the practice; although, on the other hand, public feeling is not much enlisted on that part of the

subject. The other class of warrants may have aided the executive government, especially in detecting the real strength of conspiracies and preventing exaggerated fears; but the number of such cases is small—annually about two, affecting about four persons. "The greatest number of warrants of this description issued in any year within the present century is about sixteen; extending in these cases to between forty or fifty persons. In addition to the argument derived from the smallness of the number affected, it must not be forgotten, that, after the publicity given to the fact that the secretary of state has occasionally recourse to the opening of letters as a means of defence in dangerous and difficult times, few who hereafter may engage in dangerous designs will venture to communicate their intentions by the medium of the post; and the importance of retaining the power as a measure of detective police will consequently be greatly diminished. The last argument, however, supposes that there is no absolute certainty that a letter may not be intercepted; and it may appear to some, that to leave it a mystery whether or no this power is ever exercised, is the way best calculated to deter the evil-minded from applying the post to improper uses. It must also be remembered, that if such a power as this were formally abolished, the question would not be left quite in the same condition as though the power had never been exercised or disputed: by withdrawing it, every criminal and conspirator against the public peace would be publicly assured that he should enjoy secure possession of the easiest, cheapest, and most unobserved channel of communication, and that the secretary of state would not under any circumstances interfere with his correspondence. \* \* \* Under these circumstances, it will be for parliament to consider whether they will determine upon any legislative regulation; or whether they will prefer leaving the power on its present footing in point of law, in the hands of the secretary of state, to be used, on his responsibility, in those cases of emergency in which, according to the best of his judgment, its exercise would be sanctioned by an enlightened public opinion, and would appear to be strongly called for by important public interests."

The Select Committee of the Lords have also reported. Their report is much less full and explicit than the other; not exceeding a sixth in length, and hinting at scarcely anything that is not fully discussed by the Commons.

On the annual issue of the six warrants of the criminal class, they say—"It is known in some instances to have led to the apprehension and conviction of offenders, and to the recovery of property. It may seem that the issue of six or seven warrants annually, in proportion to the 30,000 or 40,000 committals which take place in this kingdom, cannot be an efficient instrument of police: but on the other hand, the issue of six or seven warrants upon a circulation of 220,000,000 of letters cannot be regarded as materially interfering with the sanctity of private correspondence; which, with these exceptions, there is not the slightest ground to believe has been ever invaded."

On the annual issue of the state class of warrants, not exceeding two annually, the committee observe—"It does not appear that from any one of these letters specific knowledge of great importance has been obtained. The information, however, which has been derived from this source has

been regarded as valuable; and may have given better information upon danger apprehended in particular districts than could be derived from local observation, or than might be collected from the vague and exaggerated rumors which in periods of disturbance very usually prevail. It is the concurrent opinion of witnesses who have held high office, and who may be most competent to form a sound judgment, that they would reluctantly see this power abolished; and possibly it might be thought to be even more convenient and requisite in time of foreign war than it is in our present state of peace."

For the future, the committee give counsel somewhat vague—"The committee leave it to the legislature to determine whether this power shall continue to exist, and have discussed such rules as have been suggested as guards upon its future exercise,—namely, first, the concurrence of more than one of the high officers of state in the issue of each warrant; and secondly, a better and more detailed record than is at present kept of the grounds upon which each warrant is issued. They think that the responsibility will be more effective when resting upon the individuals who are mainly charged with the preservation of the peace and the prevention of crime in this country, than if it were divided with others; and a more detailed account than is already kept of the grounds upon which each warrant is granted would frequently have the effect of leaving in the office a grave accusation, without affording an opportunity of reply or defence."

#### SUN-SETTING.

Now, well performed the labors of the day,  
His journey run through heaven's expansive way,  
And round the earth his radiant glories spread—  
The Sun retires to old Tithonus' bed,  
To western worlds now rolls his orb of fire,  
And his bright beams by slow decays expire.  
Still through the atmosphere they freely flow,  
And all the west illumine with ruddy glow;  
Each vapory form, each lightly floating cloud,  
The various beams in glowing glories shroud.  
Their gilded edges here the streaks unfold,  
With jasper hues, or tints of burnished gold;  
The Tyrian purple here, sublime, is seen,  
There the bright emerald of purest green:  
Some clouds here edged with silver seem to shine,  
And others, like the ruby, glow divine.  
Th' enamelled skies the various colors show,  
Which grace the arch of Jove's celestial bow.

But earthly objects all these beauties share,  
And all the windows filled with radiance glare;  
Darkness begins the valleys to invade,  
And lofty objects send a lengthened shade:  
Now the Gloom trembles o'er the vales and floods,  
And the last sunbeams crown the lofty woods;  
Next on the towering hills the rays of light  
Fall faintly, and still play upon the sight.  
Last on the Alpine cloud-topped mountain's brow,  
The glittering rays reflect from ice or snow;  
Then gloomy Night assumes her wide domain,  
And o'er the world extends her sable reign.

*Massachusetts Spy.*

From the Liverpool Standard.

#### A CHAPTER ABOUT AMERICAN ICE.

As we are henceforth to have this cooling luxury regularly supplied to us, and its great superiority both in clearness and thickness over the home article (owing to the precarious nature of our winters and other causes) is acknowledged by all who have tried it, a short notice of its uses, the manner of keeping it, and of cutting and securing it in America, may prove interesting to our readers.

Ice has become a great article of export from America. Sixty thousand tons are annually sent from Boston to southern parts, the East and West Indies, &c.; and as sawdust is solely used in packing, a large trade is also carried on in that article. The ice-houses, near the lakes and ponds, are immense wooden buildings, capable of holding 10,000 to 20,000 tons each; some of them, indeed, cover half an acre of ground. They are built with double walls,—that is, with an inner wall all round, two feet from the outer one; and the space between is filled with saw-dust—a non-conductor—making a solid wall, impervious to heat and air, and of 10 feet in thickness. The machines employed for cutting the ice are very beautiful, and the work is done by men and horses, in the following manner:—

The ice that is intended to be cut is kept clear of snow, as soon as it is sufficiently thick to bear the weight of the men and horses to be employed, which it will do at six inches; and the snow is kept scraped from it until it is thick enough to cut. A piece of ice is cleared of two acres in extent, which, at a foot thick, will give about 2000 tons. By keeping the snow off, it freezes thicker, as the frost is freely allowed to penetrate. When the time of cutting arrives, the men commence upon one of these pieces, by getting a straight line through the centre, each way. A small hand-plough is pushed along the line, until the groove is about a quarter of an inch in width, and three inches deep, when they commence with "the marker"—an implement drawn by two horses—which makes two new grooves parallel with the first, 21 inches, the gauge remaining in the first groove. It is then shifted to the outside groove, and makes two more. The same operation goes on, in parallel rectangular lines, until the ice is all marked out into squares of 21 inches. In the mean while the plough is following in these grooves drawn by a single horse, a man leading it; and he cuts up the ice to a depth of six inches. The outer blocks are then sawn out, and iron bars are used in splitting them. These bars are like a spade, of a wedge form. In dropping them into the grooves the ice splits off, and a very slight blow is sufficient to separate them; and they split easy, or hard, according to the weather in a very cold day. Ice is very brittle in keen frost; in comparatively softer weather it is more ductile and resistible.

Platforms, or low tables, are placed near the opening made in the ice, with an iron slide reaching from them into the water; and a man stands on each side with an ice-hook, very much like a boat-hook, but made of steel with fine sharp points. With these the ice is hooked with a jerk that throws it on the platform on the sides, which are of the same height. On a cold day everything becomes covered with ice, and the blocks are each

sent spinning along, although they weigh two cwt., as if they weighed only a pound. The slides are large lattice-work platforms to allow the ice to drain, and three tons can thus be easily run in one of them by one horse. It is then carried to the ice-houses, discharged upon a platform in front of the doors, and hoisted into the building by a horse. Forty men and twelve horses will cut and stow away 400 tons a day. If the weather be favorable, 100 men are sometimes employed at once; and in three weeks the ice crop, about 200,000 tons, is secured. Some winters it is very difficult to secure it, as a rain or thaw may come that will destroy the labor of weeks and render the ice unfit for market; and then it may snow and rain upon that, before those employed have time to clear it off; and if the latter freezes, the result is *snow-ice* which is of no value, and has to be planed off.

"The operation of planing proceeds in nearly the same manner as that of cutting. A plane gauged to run in the grooves made by "the marker," and which will shave the ice to a depth of three inches at one cut, is drawn by a horse, until the whole piece is regularly planed over. The chips are then scraped off. If the ice is not then clear, the work is continued until the pure ice is reached, and a few nights of hard frost will make it as thick below—inch for inch—for what has been taken off above.

The ice is transported on railways. Each ice-house has a branch railway from the main line; and is conveyed in properly constructed box-wagons to Boston—a distance of (as the locality may be) 10 to 18 miles. The tools, machinery, &c., employed, and the building the houses, and constructing and keeping up the railroads, &c., are very expensive; yet the facilities are such, through good management, that ice can be furnished at a very trifling cost per pound; and a failure of the ice crop in America would be a great calamity.

It would appear, that for the procuring, preserving, and use of this new article of import—though but *water* in its *natural* state in the frigid zones—a variety of mechanical and scientific operations are brought into play. The gauging, squaring, and (sometimes) the planing appear to belong to the joiner, aided by the mathematician; the ploughing to the agriculturist; the transport over land to the civil engineer; the import to our navigators; the preservation to our philosophers; and the use and economy to our medical men and our housewives.

The *Scotsman* announces, that Messrs. T. and H. Smith, of Edinburgh, have been making experiments to discover an antidote to prussic acid, and have succeeded. Iron, partly in a state of peroxide and partly of protoxide, administered to the person who has taken prussic acid, will combine with it in the stomach, and form the compound prussian blue, which is harmless. Such is the statement of the *Scotsman*; which does not give minute particulars. It is to be supposed that the antidote can be kept on hand, ready labelled, for prompt use; as prussic acid, when taken in such quantities as to be poisonous, does not usually leave much time to seek for "iron partly in a state of peroxide and partly in a state of protoxide"—if the distracted friends could recollect that periphrastic title.



From Chambers' Journal.

## BAPTISTE BROWN.

## AN INCIDENT IN THE ROCKY MOUNTAINS.

It was my good fortune during one of my American wanderings, to fall in with Baptiste Brown, a famous trapper of the Rocky Mountains. Few men had seen more than he had of the wild life of the great prairie wilderness; he had hunted with the Shoshonies or snakes in the Bayou Salade, and the Bull Pen, as well as on the borders of Great Salt Lake: he had been chased by the Crows near the head waters of the Platte and Yellowstone rivers, by the Blackfeet on the Marias; but his recollections of adventures round Fort David Crockett, in Brown's Hole, were by far the most interesting to me, who had seen that curious locality. While relating his marvellous and soul-stirring narratives, his huge bulk appeared to dilate, he sucked furiously at his corn-cob pipe, and his animation was so contagious, that I fairly wished myself once more over the dreary desert which separated me from the place, and enjoying the hospitality of the St. Clairs and Robinsons. One of Baptiste's adventures with the Arrapahoe Indians was so characteristic and singular, that I give it in the order in which I received it.

The valley which is known as Brown's Hole is situated south of the Wind-river Mountains, on the Sheetskadee, or Prairie Cock river. Elevated several thousand feet above the level of the sea, only about fifteen miles in circumference, surrounded by lofty hills on every side, it is aptly, though not elegantly, characterized as a hole. The green and nutritious mountain grasses, the scattered thickets of cotton-tree, the elegant groves of willow, the rich and fertile soil of this sequestered vale, where vegetables are reared in profusion, are all nourished by the Sheetskadee, or, as some have it, the Green river, which enters the Hole from the north, leaving it by a pass similar to the vale of Tempe towards the south. The temperature is exquisite; hence hundreds of trappers make it their winter quarters. Indians, too, of all nations, but more especially the Arrapahoes, frequent it to trade with the white men. These Indians bear a better character than any others amid the red-skins of the Rocky Mountains; are brave, warlike and ingenious; hospitable to the last degree; and, unlike many of their brethren, own large numbers of horses, mules, dogs, and sheep. The dogs they fatten and eat; hence they are called dog-eaters, or Arrapahoes. Their blanket manufacture proclaims a great advance towards civilization; it being, however, a native, not an exotic art.

Now, amongst the damsels who came and located round about Brown's Hole, when the tribe paid their visit to trade with the white men, was a young and merry Indian girl, who, after one or two interviews, took forcible possession of Baptiste's heart. Nothing more common, and, according to the habits of the Rocky Mountains, nothing more in the course of things, than a union with the handsome red-skin. Many a man, of higher position in the world, had abandoned home, the appliances and arts of civilized life, to mate with a fair denizen of the wilds. Apart from women of their own color, the daring pioneers of civilization forget that they are white, which, considering the embrowning influence of exposure and the sun, is little to be wondered at. During a portion of the year, too, the various game are not to be hunted, and idleness is the order of the day: then the hunters

seek amusement in the wigwams and village greens of their dark neighbors, who differ much in their habits from those who have been expelled from their homes in the United States. The women dance here, and many a heart is lost to them while their bright bare heels foot the green; moccasins and leggins have to be made, and blankets wove, and the young trappers, like many an enamored one nearer home, linger round them while engaged in these duties, which they beguile and lighten with their rich and tender songs. It was upon one of these occasions that Baptiste first loved the young Arrapahoe. The plain course, then, was to win and wed her. But, alas! savage papas are wonderfully like certain papas in other places, though perhaps they are more open and matter-of-fact, since they require here a consideration in exchange, which consideration, being kept for the parent's use, must be of equal marketable value with the daughter. The usual course is to select your best horse, and leading it to the wigwam of your fair one's parents, there tie him to a post and walk away. If the horse, upon examination, be approved of, an interview ensues, and matters are soon brought to a final issue; while if, on the contrary, the girl should be considered more valuable than the horse, other presents are required ere the relatives can be induced to part with what is of goodly price. Many a rich white man has thus carried off the fairest girl of a tribe; and one instance has been known of seven hundred dollars being offered to a fortunate swain who had in his wigwam an Eutaw wife of great beauty; to his honor, be it said, the offer, though continually repeated, was never accepted.

Baptiste unfortunately had parted with all his hard year's earning ere his heart was taken by storm. Unluckily, he had spent them in those expensive enjoyments of spirits and tobacco, which bring so many of these stalwart and hardy frames to premature death. He had not, therefore, left himself wherewith to buy a horse, and without a horse no wife was to be had. The hunting season was over long since, and it wanted a month of the new time for starting. Baptiste, however, shouldered his rifle, and left the comforts and amusements of Fort David Crockett to seek the bear in his wildest haunts, the beaver in his dams, and the bounding elk on his grassy plains, hoping to raise, by his laborious prosecution of the chase, the means of winning his loved one from her parents.

The labor of many days brought to the trapper's cache, or hiding-place for skins and furs, a goodly supply. Otters were trapped, beavers caught, deer shot, and success appeared crowning the indefatigable exertions of my friend Baptiste. In the pursuit of game he wandered over much ground, but once loaded, he came back with his pack to the hiding-place, and depositing his treasures at head-quarters, started off once more. Three weeks and more were passed in this fashion, when, following a new path, the adventurous trapper entered a deep and woody glen that evidently led to an open plain where game might very probably be found. Pushing through thicket and briar, cutting his way even by means of his hunting-knife, Baptiste at length burst from the cover of the wood, and stood on the edge of the open glade. An exclamation of surprise followed this action, and after slowly raising his eyes for an instant, the trapper backed into the wood, and there paused to reflect. To explain his conduct, we must glance at a peculiar custom of the Arrapahoes.

No young man, though his father were the bravest chief of the tribe, can range himself amid the warriors, and be entitled to marry or enjoy other rights of citizenship, until he shall have performed some act of personal daring and intrepidity, or be sprinkled with the blood of his enemies. In early spring, therefore, all the young men who are of the proper age band themselves together, and take to the woods in search, like the knight-errants of old, of adventure and peril. Having found out a secret and retired spot, they collect together poles of from twenty to thirty feet in height, and lashing them together at top, form a huge conical hut, with the addition of branches and leaves. A green buffalo head, kettles, scalps, blankets, and a white buffalo hide, are then suspended inside as offerings to the Great Spirit; after which certain incantations are performed, the first of which is smoking the medicine pipe. One of the parties fills it with tobacco and herbs, places upon the top a coal from the fire in the Spirit's mystic lodge, inhales the smoke, and expels it again through his nostrils. The ground is then touched with the bowl, and with various other minor ceremonies the pipe goes round the lodge. Many days of feasting and dancing pass ere they are ready for the campaign; at length, however, they abandon the hut, and death is the sure portion of him who shall be known to enter or otherwise desecrate it in their absence.

Upon one of these mystic lodges it was that Baptiste had suddenly stumbled, and various were the reflections suggested in his mind by the accident. Within the lodge were articles doubtless more than sufficient to purchase the necessary horse, but Baptiste had too much honor to think of robbing the red-skin temple. There is an intuitive respect for religion—a governing principle of right in the minds of these rude men, which is not the least singular of their peculiarities. Still, my friend was sorely tempted: "It looked so plaguy like thrown afore my path, I could n't hardly say no," was his remark; besides that, he recollected the time when a poor white trapper, being robbed of his poncho at the beginning of winter, made free with a blanket found in one of the Arrapahoe lodges. Upon being brought before the elders, charged with the sacrilege, his defence was, that having been robbed, the Great Spirit took pity on his defenceless condition, and pointing out his blanket, bade him clothe himself. "The Great Spirit has an undoubted right to give away his own property," was the decision; and the trapper was freed. Still, Baptiste shook his head, and was about to move away, when a hand was laid on his shoulder behind, and an Indian warrior in his war-paint stood before him. The greeting of the wanderers was cordial and friendly, for the youth was the brother of the trapper's love, and Baptiste Brown had given him, the previous season, the handsomest tomahawk pipe in the tribe.

"My white brother is very wakeful; he rises early."

The hunter laughed, and, indeed, almost blushed, as he replied, "My wigwam is empty, and I would make it very warm for the sister of my Unami. He will be a great warrior."

The young brave shook his head gravely, as he pointed to his belt, where not a scalp was to be seen, and said, "Five moons have gone to sleep, and the Arrapahoe hatchet has not been raised. The Blackfeet are dogs, and hide in holes."

Without adding anything to this significant hint, that none of the young men had been able to fulfil their vows, the young chief led the way to the camp of the Arrapahoe war party. Baptiste, glad to see the face of a fellow-creature, followed the footsteps of the Arrapahoe, which were directed from the lodge towards the glen which the trapper had already traversed. In the very centre of the woody defile, and within twenty feet of where Baptiste had passed, was the Indian camp, where the hunter was cordially received, and invited to share the meal which the party were about to partake. Nothing loath, the keen air of the mountains having inspired a wonderful appetite, the request was complied with, and various huge slices of buffalo were despatched by Baptiste, who then smoked a pipe with his friend, and heard from him the history of the failure of the expedition. A short time passed, and certain signs made Baptiste somewhat uncomfortable. It was apparent the Indians were whispering something of interest concerning him, and, after a short pause, a hot discussion was on foot, in which the young chief joined. To use the words of the narrator of the tale, "they all agreed that his white skin indubitably indicated that he belonged to the great tribe of their natural enemies, and that, with the blood of a white upon their garments, they would have fulfilled the terms of their vow, and could return to their friends and tribe. But a part of them seriously questioned whether the sacred names of friend and brother, which they had for years applied to him, had not so changed his natural relationship to them, that the Great Spirit, to whom they had made their vow, had sent him among them in the character which they themselves had given him—as a friend and a brother. If so, they reasoned that the sacrifice of his life would only anger the Spirit, and by no means relieve them from the obligation of their vow. Another party reasoned that the Spirit had sent this victim among them to test their fidelity to him; he had indeed been their friend; they had called him brother; but he was also their natural enemy; and that the great one to whom they had made their vow would not release them at all from their obligations if they allowed this factitious relation of friendship to interfere with obedience to himself. The other party rejoined, that although the trapper was their natural enemy, he was not one within the meaning of their vow; that the taking of his life would be an invasion of its sacred obligations, a blot upon their courage, and an outrage upon the laws of friendship; that they could find other victims, but that their friend could not find another life." To the consternation of Baptiste, these reasons did not appear to have their due weight with the majority, who, eager to regain their homes, and probably their loves, were bent on sacrificing him in fulfilment of their engagement. Seeing this, the young chief, and friend of our hardy trapper, rose, and waving his hand, intimated his intention to speak. "The Arrapahoe is a warrior; his feet outstrip the fleetest horse; his arrow is as the lightning of the Great Spirit; he is very brave. But a cloud is between him and the sun; he cannot see his enemy; there is no scalp in his wigwam. The manitou is good; he sends a victim, a man whose skin is white, but his heart is very red; the pale-face is a brother, and his long knife is turned from his friends the Arrapahoes; but the Spirit is all-powerful. My brother," pointing to Baptiste, "is very full of blood; he can spare a

little to stain the blanket of the young men, and his heart shall yet be warm. I have spoken." As the trapper expressed it, the proposal was "considerable agin the grain;" but he felt that the young chief had saved his life. Loud acclamations followed the speech; many of those most clamorous against the trapper, being only actuated by the earnest desire of returning home with their vow accomplished, when all would be received into the list of warriors, and each of the young men would have a wigwam, a wife, and all the honors which accrue to an Indian father of a family. A flint lancet was now produced, the white man's arm was bared, and the blood which flowed from the slight wound was carefully distributed and scattered over the garments of the delighted Arrapahoes. The scene which followed was entirely unexpected on the part of my poor friend Baptiste Brown. Quite satisfied that their vow of shedding an enemy's blood had been fulfilled, the Indians were all gratitude for being removed from the horns of a dilemma which had lasted for five months; and to testify their gratitude in a substantial form, each man sought his pack, and laid at their white brother's feet, one an otter-skin, another a beaver, another a bear or buffalo, and so on, until his riches in furs far outstripped his most sanguine expectations. The young chief stood looking on, and when the rest had successively honored their guest, advanced, leading by its bridle a magnificent saddle-horse and a sumpter-mule. (doubtless a stray one from a trader's flock,) and handed them to Baptiste. To refuse would have been against the etiquette of the desert, and, besides, our friend was too alive to the advantages which would accrue to him, to be any other than thankful. Rising therefore with a grim smile, he said, speaking in the Arrapahoe tongue, "A friend of mine was marching from St. Louis to Fort Bent, and of course he crossed the trail of the Cumanches. Well, one day a party of them Indians came upon him, and having looked at him for about tu tu's, seized him, and dragging him to a pool, thrust his head into the water several times. Failing to obtain their object, they plastered his hair with mud, and, washing it out again, were at length satisfied that it really was red, and not dyed. Delighted with so extraordinary a prize, they denuded his head, and having given him a dozen horses in exchange, very politely sent him on his way. Now, my friend used to say that he wished he had a few bushels more of the article, since it went off so well; and I, like him, wish I had more red water in my veins, since you find it so very valuable." The Arrapahoes, who had seen red hair on others besides Brown himself, listened gravely, and when he had done, gave an expressive "hugh!" after which they broke up their camp, and were soon lost to the trapper's view in the arches of the forest. Baptiste, who felt weak, mounted his horse, after loading the mule, and made the best of his way to the cache, where he remained some days. At the end of a fortnight, restored to his usual health, the trapper took his way to Brown's Hole. So early in the season, his furs obtained high prices, and having bartered them for knives, beads, powder, ball, &c., a few days brought him to the Arrapahoe village. The horse was considered a fair exchange for the maiden, and from that day the wigwam of his red-skin brida, in Old Park, on Grand River, was the head-quarters of Baptiste Brown, the hardy trapper of the Rocky Mountains.

From a London paper.

#### THE FIELD OF BATTLE.

'T is night—the combat's rage is o'er;  
The watch-fires blaze from hill to hill;  
The bugle note is heard no more.  
But all is solemn, hush'd, and still!  
Save where some faint and mournful tone  
Swells on the midnight breeze, a dying moan.

How chang'd the scene, where morn beheld  
A gallant host in bright array;  
While martial notes exulting swell'd,  
To cheer the brave on danger's way;  
And hope and valor bade the pulse beat high,  
Thrill'd the warm heart and fixed the kindling eye.

Now the pale beams, by moonlight shed,  
A field of blood disclose,  
Where, on their chill and lowly bed,  
The martyr'd brave repose,  
And the dead calm, the desolate suspense,  
With nameless horror chills the shuddering sense.

Thousands are here who sprung to arms,  
When the shrill clarion pealed the strain,  
By danger's call, or glory's charms,  
Ne'er to be rous'd again.  
E'en now, while shades and stillness reign,  
A viewless band are near—the spirits of the slain.

Whence came that deep tremendous sound?  
Whence broke the flash intensely bright,  
Bursting the midnight calm profound?  
A cannon peal disturbs the night:  
'T is past, and deeper is the gloom,  
And all again is silent as the tomb.

Glancing by fits on shiver'd steel,  
A quiv'ring light the moonbeam throws,  
And through the broken clouds reveal  
Full many a sight of death and woe;  
Gleaming on pallid forms around,  
Stretch'd on the soldier's bier, the cold and dewy ground.

Midnight and death o'er all the soil  
A fearful deep repose have spread;  
Worn with long hours of martial toil,  
The living slumber with the dead,  
Nor hear the wounded faintly sigh,  
Nor dream of those who round them bleed and die.

Rest, slumberers, rest!—the morn shall wake  
And ye to arms again shall rise!  
Your sleep the clarion call shall break,  
And life and hope shall fire your eyes—  
But, oh! what thousands strew the battle plain,  
Whom day-spring ne'er shall wake, nor war note  
rouse again.

**SINGULAR ACCIDENT.**—A few days ago, as the guard of the Kendal mail coach was on his way to Whitehaven, one of the "winged tenants of the air," of the moth species, and of considerable size, struck his ear with such violence that it completely buried itself in the inner cavity of that organ. No assistance could be obtained, and in this uncomfortable situation the guard reached Whitehaven, when a surgeon dislodged the intruder, which he found completely buried in the sufferer's head.



## THE SECULARITY OF MISSIONS.

THE secularizing influence of property and organization for despatch of business is not confined to Established Churches. The purest Voluntary Church cannot escape it; the missions to the heathen bear witness to its influence. Wherever there is permanent organization—an annual revenue and annual expenditure—a separate class of secular agents grows up; and they, and sometimes others of ostensibly spiritual functions, combine to instil a worldly spirit into the whole body, or at least to make the spiritually-minded unconsciously more or less subservient to their selfish objects.

The difficulty which the Missionary Societies have had to struggle against the land-sharking propensities of their ministers and catechists in the colonies, and the occasional demission of the spiritual character by missionaries rather than part with the lands they had purchased from the natives at a nominal price, prove our position to a certain extent. But the readiness with which missionary agents exchange their pastoral for diplomatic functions affords a still more striking illustration of it. At this moment we have no fewer than three government officials abroad to whom the missionary character has been a stepping-stone to political employment. The missionary Gutzlaff has been converted into government-interpreter, and *quasi* superintendent of police, at Hong-kong; the missionary Pritchard has been converted into a British consul at Otaheite; and the missionary Clarke has been constituted protector of the aborigines, or minister of state for the native department, in New Zealand. The elevation of a foreign adventurer and a couple of mechanics to official rank and high salaries is enough to attract a whole host of mercenaries into the employment of the missions. They will look forward to the same opportunities of cutting out work for themselves, and the same zealous patronage from the managers at home, and regard the appointment of catechist as a better introduction to a snug place under government than even a clerkship in a government office.

It leaves an unfavorable impression of missions as a school of diplomacy, that all the appointments above enumerated have been productive of, or at least mixed up with, transactions which have occasioned much annoyance to individuals and serious embarrassment to the country. Gutzlaff has been more or less identified with almost every step that awakened the jealousy of the Chinese government and led eventually to the opium war; Clarke has been mainly instrumental in producing that state of affairs in New Zealand which occasioned the Wairao massacre; and it will not be the fault of the orators of the London Missionary Society if Pritchard do not become the cause of war between France and Great Britain.

For the political influence and misdirected activity of the missionary bodies government is greatly to blame. The meddling of missionaries abroad in matters beyond their sphere has been encouraged to supply the deficiencies of government. The power of affiliated bodies spread through every province of the empire, continually appealing to the prepossessions of an estimable portion of the community by the press or public meetings, collecting and dispensing annually revenues to the amount of hundreds of thousands, has made the legislature and the executive quail before it. Missionary zeal has been affected as a passport into parliament; and

the government offices have been crammed with the offspring of the agents of missionary societies. Government—all our ministers for many years back—have been little better than tools to the secularity of missions. The influence of the traders on the missionary sentiment is not confined to the departments already specified; or rather, they are naturally leagued with all the traders, whatever their designation, on the religious sentiment of the country. They are part and parcel of that fraternity which has been allowed almost to ruin our tropical colonies by their rash and blundering plan of negro emancipation, and which only last year caused the rejection of the education-clauses in the factory bill. They are, in fact, an intriguing, worldly-minded hierarchy, as bigoted and domineering in their sectarianism as the Romish hierarchy in its palmiest days.

The eyes of the public are opening to its real character. The war-howl raised by the missionaries at Leeds and Finsbury, and this week at Exeter Hall, will assist the unmasking. The usual oratorical device of prefacing warlike appeals by professions of a love for peace were resorted to; but war was the undisguised alternative of all the speakers—an armed intervention between France and Otaheite—a war to arrest the progress of Roman Catholic missionaries in the Pacific.

These revelations of the real character of the traders upon religious professions ought to encourage government, as its experience of the danger of giving way to them ought to instigate it, to shake off their yoke. Within his proper sphere, there cannot be a more amiable or useful character than the missionary. It may not be possible for him to make Christians of savages, to the extent his enthusiasm persuades him; but, by habituating them to the observance of forms, and by familiarizing them with doctrines and histories in which there is a pure and elevating sentiment, which will dawn more and more upon every succeeding generation, he is sowing the seeds of a civilization, the full fruition of which is reserved for a distant era, and at the same time he is taming the savage, and making him a safe companion. While the missionary confines himself to his spiritual office—be he the most illiterate mechanic ever selected for the task—it is Christianity that speaks in and through him, and its influence is for good. But when he takes upon him to supersede the colonist, and to affect the state-minister of some barbarian chief, or to conduct negotiations with foreign states, he is abandoned by the Power whose altar he has deserted, to his own rude and ignorant impulses; and his meddling is pregnant with mischief. The British government is bound to watch over and protect its missionaries with a jealous care so long as they remain within the sphere of their proper duty; but it is equally bound sternly to check and restrain them whenever they are discovered tampering with secular affairs.—*Spectator*.

AN old house in Essex-street, Whitechapel, which was once the residence of the Earl of Essex, the favorite of Queen Elizabeth, was demolished this week, to make room for improvements. Another old building in the same neighborhood, once the occasional residence of Elizabeth, is soon to share a like fate. This decayed palace was recently a common lodging-house, where beds were let at threepence a night.

From Chambers' Journal.

## FOWNES' PRIZE ESSAY—CHEMISTRY, AS EXEMPLIFYING THE WISDOM AND BENEFICENCE OF GOD.\*

THIS essay springs from a private endowment under the care of the Royal Institution. The author is Mr. George Fownes, chemical lecturer in the Middlesex Hospital. We are now familiar with books tracing divine wisdom and beneficence in physics, physiology, and the mental constitution of man. Mr. Babbage has called even the unpromising subject of mathematics into the same field. But this, as far as we are aware, is the first systematic attempt to draw inferences of design from the chemical constitution of the earth and its inhabitants. The book is a very able one, and, as a virtue which we know will be a great further recommendation, it is short.

Mr. Fownes starts by explaining that in the earth, its atmosphere, and inhabitants, there are but fifty-five simple (undecomposed) substances or elements, of which, however, only a few are in any considerable amount. Oxygen and nitrogen, (forming the atmosphere,) hydrogen, (forming, with oxygen, water,) the non-metallic body silicon, the metals aluminium and calcium, and in a less proportion potassium, sodium and iron, may be said to constitute the bulk of the inorganic materials, subjected to our observation. Another, carbon, is the principal constituent of all organic bodies. Mr. Fownes' first object is to trace the constituents of vegetable and animal bodies back into the inorganic world (the dust of the earth) out of which they have been formed; finding potash, for instance, in the felspar, one of the materials of granite and phosphorus, a large constituent of our bones, in porcelain clay and other substances. "The whole subject," he says, "of the formation of cultivable soils, and their distribution over the earth's surface, is replete with interest and instruction. Every earthquake which has in bygone times fractured and dislocated the solid strata, every flood which has swept over the ancient continents, every change of level which has elevated the bed of the ocean or depressed the land beneath its surface has contributed more or less to bring about that mixture of materials—sand, clay, and calcareous matters—which now form the earth's upper covering—the fruit-bearing soil, the inexhaustible source of prosperity and strength. Surely it is not too much to infer that all these things had reference to that future condition of the earth when it should become the habitation of beings capable of appreciating the wonders around them, and deriving mental support and guidance from the contemplation of these wonderful provisions, while enjoying with thankfulness the physical comforts to which they give rise."

Mr. Fownes then traces the course of certain of the solid substances of the globe, as washed down by running waters into the sea, which forms a great depository for them. The salt of the sea—whence is it derived? Entirely from the land, out of which it is carried by rivers. The ocean must needs be salt, for it is the ultimate recipient of all such matters. And lakes that have no outlet, as the Aral and the Dead Sea in Judea, are salt for the same reason. It becomes interesting to ascertain the uses of these foreign substances in the sea. "It is highly probable that the iodine of sea-

water is connected, in some way, with the well-being of submarine vegetation, that it forms an indispensable component of the food of these plants. It is difficult to account, on any supposition, for its constant occurrence in certain of them. They appear to have the power of seeking out and appropriating to themselves the almost infinitesimal quantity of iodine which analysis indicates in seawater. Again, the lime-salts have their use, and a most important one it is. Shell-fish and coral-polyps depend upon them for the material of their curious structures. It is very possible, also, that what we are accustomed to call impurities in ordinary water, may be of great service to the living system. These matters are admitted to exercise an influence upon the body in particular states of disease; and if so, it is unlikely that they should be altogether inactive in health. Pure, distilled water, even after long exposure to the air, is exceedingly rapid and disagreeable to the taste, which may be taken as a sort of indication of its unfitness for ordinary use."

The chemistry of the atmosphere presents a very striking example of what can scarcely be considered in any other light than design. The gases composing the atmosphere are, as is well known, not chemically but only mechanically combined. They have, however, a surprising tendency to a mutual diffusion, inasmuch that if a jar of carbonic acid gas be brought into connexion with one of hydrogen, a gas twenty times lighter, the communication being by a tube, and if the heavy gas be placed lowest, nevertheless, in a little while, a complete mixture of the two takes place. Now, see how important is this law of gaseous diffusion. Carbonic acid gas is expired in great quantities by animals: it is prejudicial to human life: if it were to have the least tendency to stagnate near the ground, it would work dreadful effects wherever great multitudes of animals were assembled. Large cities and crowded rooms would be scenes of extensive destruction. Diffusible as it is throughout the other two gases composing the atmosphere, it is comparatively harmless. The benefit is equally clear with regard to these two gases. Were these to obey the law of gravity, they would arrange themselves in two layers of unequal thickness, the oxygen below, and the nitrogen above. "In such an order of things, animal existence would be out of the question: an atmosphere of pure oxygen is as fatal to life as one destitute of that element; all the phenomena of combustion and oxydation generally would be exalted tenfold in power and energy; in fact, the present arrangement of nature could not be maintained in its integrity a single hour. The equable diffusion of vapor of water through the atmosphere is no less important than that of the carbonic acid. In many warm countries, during a great part of the year, rain seldom or never falls, and it is only from the copious dews deposited in the night that vegetables derive the supply of moisture required for their growth, and to sustain them, by the cooling effects of evaporation, from the scorching rays of the noonday sun. Were the invisible, elastic steam, disengaged from the surface of the sea, or other large bodies of water, not subject to the diffusive law in question, it is probable that other and very different phenomena would be observed."

We have not room to follow Mr. Fownes into his very interesting speculations on vegetable and animal chemistry, but may present a few of his observations on the complicated processes which ever

\* Churchill, London: 1844.

go on within our bodies. After showing how carbon and hydrogen are burned in the blood—not, as hitherto supposed, in the lungs, but in the capillaries, to which, according to Liebig's theory, the oxygen is carried by the iron in the blood—he pronounces, as a fact of which there can no longer be any doubt, "The internal capillary combustion is the source of animal heat. Thus much," says he, "for the body. Every part where blood-vessels are to be found, every part where nervous influence is perceptible, every organ, every tissue, muscle and brain, and nerve, and membrane, waste away like a burning taper, consume to air and ashes, and pass from the system rejected and useless; and where no means are at hand for repairing these daily and hourly losses, the individual perishes—dies more slowly, but not less surely, than by a blazing pile. He is, to the very letter, burned to death at a low temperature: the various constituents of the body give way in succession. First, the fat disappears: this is the most combustible, but at the same time the least essential. It is sacrificed; then the muscles shrink, and soften, and decay. At last, the substance of the brain becomes attacked, and madness and death close the scene. 'This is starvation.'"

After details showing the adaptation of the chemical nature of food, both vegetable and animal, to the chemical nature of the bodies of the animals by which respectively these kinds of food are devoured, Mr. Fownes goes on to say, "The bodily frame and constitution of the human race have been so adjusted as to admit of the maintenance of life and health under a variety of circumstances truly surprising. Extremes of heat and cold, of moisture and dryness, are borne with impunity so long as the habits and mode of life of the individual remain in accordance with his physical condition."

"In tropical countries, where the high temperature of the air, and the abundance of aqueous vapor it contains, develop to the utmost the resources of vegetable life, the amount of personal labor required for self-support is extremely trifling. The heavy and laborious culture of the temperate regions, the unceasing tillage of the soil so necessary with us, are altogether uncalled for. In those smiling regions of almost perpetual sunshine, where the teeming earth gives its increase with the least possible toil on the part of the cultivator, and all Nature invites to repose and indolence, the energies of the mind itself are unstrung by the removal of that sharp spur of necessity which goads men to the task of labor, until exertion becomes a habit, which carries them onward beyond their immediate wants, and impels them to seek the permanent improvement and exaltation of their state. The sustenance furnished to the human race by a wise and bountiful Providence, has been so adjusted *chemically* to this condition of things, as involuntarily to excite in the observer the deepest feelings of admiration and gratitude."

"Where the temperature of the air approaches within a few degrees that of the body, the generation of animal heat by the burning of organic matter in the blood may be reduced in amount. Where muscular power and motion are less required and less employed, the waste of the body is diminished in the same ratio; a comparatively small quantity of food, both for fuel and for nutriment, is in such a case required. The stomach, however, must be filled, the uneasy sensation of want must be removed; and this has been done. In the rice, and fruits, and other products of the

countries in question, we find a food extremely agreeable to the taste, but possessing little sustaining power; much of it is mere water, and the solid portion itself is chiefly made up of neutral, non-azotized bodies, containing oxygen and hydrogen in the proportions to form water; bodies which, in burning, furnish far less heat than those in which carbon and hydrogen greatly predominate. The azotized portion of the food of hot countries is always very small in comparison with the rest; it is, however, sufficient for the purpose of repairing the trifling daily loss the body sustains. The desire for animal food is very slight, and often is altogether absent."

"The North American hunter lives wholly upon flesh; he patiently follows the footmarks of his game through the wild woods, for days together, until he finds an opportunity of surprising it, fasting meanwhile, or, at best, subsisting on a few scraps of dried meat; rivalling the beast of prey in his power of endurance—in his quick yet stealthy step, and in the searching glance of his eye; careless alike of frost and heat, sleeping on the bare ground, a thin blanket or a buffalo robe his only protection. It is his food which enables him to do and to suffer all this—to bear exertions which would destroy him were he not supported from within by a kind of nourishment so concentrated in its form as to supply abundantly during the period of repose the losses of bodily substance, the deficiencies occasioned by change of matter, and even to render the exertions themselves, violent and continued as they are, actually sources of pleasure."

"It is not by any peculiarity of physical constitution that the Indian is enabled to bear hardship, and fatigue, and privation, which to us appear extraordinary: the European, under similar circumstances, and *under a similar regimen*, exhibits the same remarkable powers. The hunters and trappers, employed by the fur companies of British America, lead a still harder life. These men are, as is well known, accustomed to disperse themselves, often singly, along the rivers and streams, the haunts of the beavers and other animals they seek to capture; a rifle and flint and steel their only household goods, without shelter in the midst of a trackless wilderness, often suffering the extremities of cold and hunger, subsisting entirely on the flesh of the creatures they succeed in taking, and this for months together, until each has collected the number of skins he deems sufficient to repay his labor, or the fast-falling snows of approaching winter drive him to seek the protection of the trader's fort."

"And yet, this wild existence is said to possess a charm of its own, powerful enough to bind to the end of their days those who have once practised it: the unbroken solitude of the lake and the river, the freedom of the desert, and even the very dangers of the pursuit, have their own peculiar attraction. The men themselves, when not cut off prematurely by starvation, or any other of the common accidents of this life, or murdered by the Indians whose vengeance they have provoked by their aggressions, live to old age, exempt from a host of sorrows and afflictions known to a more luxurious race; and perhaps, on the whole, enjoy as much real happiness as commonly falls to the lot of man."

"Take again the condition of the Esquimaux in his hut of ice-blocks or drift-wood, his only food the seal and the walrus, which he spears with his bone-pointed weapon, from a little frail coracle of



skins. The air is cold enough to freeze quicksilver; he wraps himself in his dress of furs, and forth he goes with perfect impunity, and the cold of the shore of the frozen sea affects him less than that of a chilly January day does the Englishman by his warm fireside. Yet the Esquimaux has no fireside; he cooks his food by the heat of a lamp fed with oil, the product of the chase; his country produces no fuel, and he cannot think of devoting the few fragments of wood, brought by the ocean-currents from more favored climes, which he finds upon the sea-beach, to this purpose: they are far too valuable to be so employed. How, then, it may be asked, is he capable of supporting this intensity of cold? The peculiarity of his food furnishes the reply.

"We are accustomed to look with horror and disgust at the food of these poor people, as we in our ignorance and presumption dare to call them; to commiserate those who, as our northern navigators relate, prefer a piece of tallow-candle, or a draught of train-oil, to the fare of an English man-of-war; but a little more consideration might perhaps show us that the blubber and fat of the arctic cetacea and fish, the only food the inhabitants of these countries can obtain, really constitute the only sort of food which could enable them to bear up against the extremities of cold to which they are subject. There is no other substance but fat, and that in very large quantity, which would answer the purpose required. It is a substance exceedingly rich in hydrogen, and in the body eminently combustible; weight for weight, it will generate a far larger amount of heat, when burned in the blood, than anything else which can be taken as food. It will be wiser, then, instead of condemning, as filthy and abhorrent, the tastes and propensities of the Esquimaux, to consider them as a special adaptation, by an unspeakably benevolent Providence, of the very wishes and inclinations of the individual to the circumstances of his life.

"But this is not all: the same individual who, when in a warm or temperate climate, craves a large proportion of bread and vegetable food, and turns with aversion from fatty substances, experiences, when transported to the frozen regions of the north, a complete revolution in his tastes and desires. Nothing will then satisfy him but fat: the flesh of deer, fish, to be acceptable, must be loaded with fat; he takes delight in sucking the marrow from the bones; nothing in the shape of grease comes amiss to him; he longs for it, he desires it as much as he formerly loathed it. But this new, this induced state, only lasts as long as his mode of life requires; removal to a milder region restores, to a very great extent, the first condition.

"This is no imaginary statement; it is perfectly authentic, and serves to place in a novel and striking point of view the power of accommodation to circumstances possessed by man."

We conclude with a few remarks, in which we can most cordially concur with our intelligent author. "In whatever light we consider these matters, the argument of benevolent design and contrivance, deduced from the obvious facts themselves, remains unaltered. The care and beneficence of the Creator is not less shown in the connexion he has established between physical and moral health. The labor which a man is obliged to exert to procure for himself the necessities of life, is not less essential to the maintenance of a healthy tone of mind than of a sound and active

condition of the bodily organism. No evil can be greater than the rust, alike of body and soul, which results from inactivity. The state of labor is the very condition of enjoyment,—not, indeed, the excessive and slavish toil to which a very large portion of mankind have, by a most unfortunate combination of circumstances, been reduced, but that moderate and well-regulated labor of mind and body which conduces so much to the welfare of both, and which would be, under more favorable auspices, fully sufficient to impart comfort and abundance to all. If men only knew and felt how inseparably their own individual happiness is connected with the welfare and prosperity of their species; if those who have intellect, and power, and wealth at their disposal, could only be persuaded to thrust aside the petty jealousies and cares, the idle parade and prejudices of society, and join heart and hand in the great work of human improvement, how much might be effected! How much happier, and how much better all might become if a sound and universal spirit of philanthropy were once awakened, capable of embracing within its pale all orders and conditions of men, considering them, as they really are, the children of one common Parent, bound together by the ties of brotherhood, each having a special duty assigned to him to perform, not independently of, but in conjunction with, the rest, and exciting all to render each other mutual assistance in surmounting the difficulties and trials of this life of discipline and pupilage."

#### BENNIE MINORIE—ANECDOTE OF SLEIGHT-OF-HAND.

ABOUT forty-five years ago a poor man, usually, though fictitiously, called Bennie Minorie, perambulated the south of Scotland with a rarer show-box, by which and a few sleight-of-hand tricks he made a living. Many a simple farm-house in Peebles and Selkirkshires retains agreeable recollections of the visits of this innocent old man, whose kindness to children and general simplicity of character made him a favorite with old and young. The writer of this anecdote remembers well his coming occasionally to his father's house in a border county, and there amusing the inmates for an afternoon with his show and his feats of legerdemain.

One of Bennie's chief tricks was an exhibition of three pieces of wood like barrels without ends, which were strung like beads upon a double piece of whip-cord. When he held the ends of the cord firmly in his hands, he defied any one to take the barrels from off the cord without breaking the strings; but when another person held the ends of the cords, he caused the barrels to fly off the strings as if by magic. The thing appeared to those unacquainted with it to be impossible, but nevertheless it was quite simple to those who knew the secret of the puzzle.

This trick of the "sour-milk barrels" Bennie Minorie taught to a brother of the writer, then a boy of ten years of age. This youth in time went to sea, and, after a service of about twenty years, attained the command of a merchant-ship. It happened one day, while the ship was at Messina taking in a cargo for South America, that a native juggler made his appearance among the shipping in the port. He carried a basket containing trinkets of various sorts, which he sold to the crews of the

vessels in the harbor; and he, besides, drew considerable sums of money from the wondering sailors, by exhibiting to them a great many sleight-of-hand tricks. Amongst others of his performances, the captain of the British ship was surprised to observe the identical feat of Bennie Minorie's "sour-milk barrels," which the old man had taught him in his youth among the heath-clad hills of Scotland. Not one of the many ship-masters and sailors of the different nations present, could understand the juggler's puzzle, or imagine how the barrels could be taken off the cords without breaking them.

The juggler, like all others of his calling, went strutting about in the crowd, boasting and magnifying his extraordinary dexterity. The captain, recollecting distinctly all the particulars of the same puzzle which Bennie Minorie had taught him, stepped forward to the bombastical conjurer, and feigned to wonder at the extraordinary powers which he showed in his art. The juggler, with great arrogance, at once challenged the captain, or any man in all Sicily, to take the barrels from the cords. The captain, still pretending to be entirely ignorant of the trick, said he thought the thing might be possible, although it appeared to be very difficult. The gasconading conjurer instantly said he would wager his whole basketful of trinkets, worth several pounds, that the captain could not take the barrels from the cords. The captain, with feigned hesitation and apparent fear, took the bet, engaging to pay *twenty dollars* against the basket in case of failure. The twenty dollars were immediately lodged in the hands of a third party, at the request of the juggler, that his prey might not escape him. The gentleman in whose custody the money was placed for security, with other on-lookers, was astonished at the simplicity of the captain, and tried to dissuade him from foolishly throwing away his money to a professed trickster, being quite sure he would lose the bet. The captain, however, persisting in his resolution, commenced handling the barrels in a very awkward manner, as if he had been completely ignorant of the trick. This only produced a smile of contempt, and increased the confidence of the self-sufficient man, who now thought himself quite sure of the twenty dollars. But on the captain again putting his hands upon the barrels and cords in a more easy and confident manner, as if familiar with the trick, the juggler's countenance instantly fell. He perceived the trap laid for him, and exclaimed, "My basket is lost." The captain, after some flourishes with his hands, as if he had been an adept at the juggling trade, immediately undid the mysterious puzzle, to the great amusement of the bystanders, and infinite mortification of the poor juggler. The captain immediately ordered one of his crew to carry the basket on board his ship and secure it in the cabin.

The bombastical conjurer was now completely chap-fallen. Another basket of merchandise was not easily to be obtained; and, besides, the crowd present burst out a-laughing at his embarrassment, and at seeing the biter so effectually bitten. After keeping the basket for some time in his possession, the captain returned it to the humble necromancer, warning him at the same time to be more cautious in future, and not again to peril his whole fortune and fame upon a single throw of chance. The captain only retained a tooth-brush or other trifle out of the basket; and the juggler was so much pleased and gratified at his wares being returned to him, that he pressed the captain to accept

of some articles of more value than the tooth-brush, but which he declined to receive.

The necromancer now spoke to the captain in a familiar, friendly, and subdued tone, as if he had met with a brother magician, and wished to try him with more of his sleight-of-hand feats; but the captain, being only in possession of the single one of "the sour-milk barrels," declined having anything further to do with him. The transaction produced considerable interest at the port of Messina, and was the topic of general conversation for some time.—*Chambers' Journal*.

#### THE TAHITI QUESTION.

Now that the excitement is no longer fed by questionings and answerings in the French Chambers or the English Parliament, the tone of the Parisian press has become more subdued in reference to the affair of Tahiti. The matter has now, we hope, a chance of reasonable adjustment, for M. Guizot is no longer compelled to give an account of his intentions and proceedings, day by day, to the French people, while the English cabinet is also spared the necessity of giving public utterance to sentiments, which, however proper they may be, were taken advantage of in France, to add to the irritation that already existed there.

Negotiations are now going on between the two governments, with the view of ascertaining the true merits of the question; and it is perhaps, fortunate that, on a closer examination of the facts, they seem to have been so gross towards this country, that it is impossible for M. Guizot to withhold the reparation that is required. We cannot doubt that, as far as the Tahiti affair is concerned, there will be no rupture between England and France, but it ought to become a very serious consideration with the French minister how he allows the peace of Europe to be placed in constant jeopardy by suffering authority to remain in the hands which know not how to make a proper use of it. There will be endless trouble in repairing the breaches occasioned by the Dupetit Thouarses, the Bruats, and the D'Aubignys, if such men are permitted to exercise any power that may be wielded so injudiciously as to cause dissension between their own and foreign governments. Prevention, in matters of this kind, is far easier and much safer than cure, and we trust that M. Guizot will take care for the future whom he suffers to be intrusted with positions of so much responsibility that peace or war depends on the mode of filling them.—*Atlas*, August 17.

**SUBSTITUTE FOR THE SCYTHE.**—A correspondent informs us, that a Mr. J. Rowland, farmer, of Clotton, near Tarporley, has this year adopted the novel experiment of plucking up his oats by the roots, in preference to making use of any article connected with husbandry for that purpose.—*Chester Courant*.

**A VALUABLE DOG.**—The *Sydney Herald* contains an advertisement for the sale of a dog, trained to take the entire charge of 2000 sheep. The advertiser warrants him to perform faithfully the duties of a shepherd, take the flock out at sunrise, and bring them safe home at sunset; and to look well after the lambs. He is also said to be a good night watchman.

From Chambers' Journal.

## BRIDGET PATHLOW.

To work out an honest purpose, in spite of opposition, misfortune, penury, taking no heed of scorn, no heed of ridicule; to say that you who now despise shall yet respect, you who scorn shall yet have benefit; to say these things and do them, is to present human nature in a form which sooner or later must obtain universal sympathy. In this virtue a world of hope lies hidden, even for the meanest; for, in being honest to ourselves, we create a power of honestly serving others.

In the town of Lincoln there lived some years ago a man of the name of Pathlow, who, having served in the army, had retired at the close of the war upon a small pension. He belonged to what is commonly called a good family, was proud of this relationship, and having dissipated his little patrimony, and made an ill-assorted marriage, had entered the army, not with the desire to serve, but as the only means he had of finding to-day or to-morrow's bread. After many struggles between poverty and pride, debt and disgrace, he settled in Lincoln, when he was some years past middle life. Here the old course was run. Fine houses were taken, fine appearances made; but these, unlike the three degrees of comparison, did rather begin with the largest and end with the smallest; so that, when our tale commences, the fine house in the finest street, had dwindled into a mean habitation, that could only boast its neighborhood to the minster, where, shadowed by some antique trees, and within sound of the minster's bell, it was the birth-place of Bridget Pathlow.

There were two brothers several years older than Bridget, born before Pathlow had settled in Lincoln, and on whose education he had spent all available means; for, as he had great promises from great relations, he destined them to be gentlemen. Besides these two, Bridget had another brother some years younger than herself, who, being born like her during the poverty and ill-fortunes of the parents, was looked upon with no favorable or loving eye.

Whilst the elder brothers were better clad, well taught, inditing pleasant epistles to far-off relations, poor Tom and Bridget Pathlow were the household drudges. To do dirty work, to repel needy creditors, to deny with the prompted lie, to steal along the streets, and, with the heart's blood in her face, to hear the unpaid tradesman dishonor her father's name; to sit by the fireless hearth, or by the window to watch her father's return, who, urged for money, would perhaps keep from home whole nights, having first told Bridget that he should not return alive; to watch through those hours of mental pain, and yet in this very loneliness, in these childish years, to have one never failing belief of being by self-help not always so very sorrowful or so despised, surely made this young child no unworthy dweller under the shadow of the olden minster. Tom was not half so resolute as Bridget, nor so capable of endurance.

The elder brothers left home when Bridget and Tom were not more than eleven and eight years old. No love had been fostered between these elder and younger children; yet in the heart of Bridget much was garnered. Now that they were alone, the children were more together, the household drudgery was shared between them, as well as the cares and sorrows of their miserable

home, and the stolen play round the minster aisles, where many, who despised the parents, said kind words to the children. Designing her for some humble employment, where the weekly gain of two or three shillings would supply the momentary want, Captain Pathlow (as he was called) denied Bridget any better education than such as was afforded by a school, the weekly fees of which were sixpence; but she had a kind friend in an old glass-stainer, who lived hard by, and another in his son, a blind youth, who was allowed to play upon the minster organ. As a return to this poor youth for some few lessons in organ-playing, Bridget would carry home each evening the key of a little postern door (which a kind prebend had lent him,) and by which private access was gained to the cloisters. So often did Bridget carry back that key, that at last, becoming a sort of privileged person, she was allowed to come through the garden, which, shadowed by the cloister walls, lay pleasant before the prebend's quaint study window. The old man, looking up often from his book, and remembering that in Lincoln her father's name was linked to all meanness and disgrace, would wonder to see her push back from the overhanging boughs the ripe apples, or the luscious grapes, untouched, untasted; so, judging from small things, he took to heart that this poor Bridget had a touch of nobleness about her. From this time he observed her more narrowly. Hurrying across the garden, she yet always lingered (particularly if the shadows of evening were low) to look at one piece of wood-carving, which, projecting from the old cloister wall, looked in the waning light like the drooping ivy it mimicked. One night the old man questioned her, and said he should like to be her friend, to have her taught, to serve her.

"I thank you much, sir," said she, "but if —" she stopped abruptly.

"If what, Bridget?"

"If I could sew or earn —" she stopped again.

"Well," said the old man smiling, "I see you are a good girl, Bridget. There are, if I remember what my housekeeper said, six Holland shirts to make, which —"

"I will do them. To-morrow night I will come; for I have a purpose to serve, which will make me work with a ready finger."

She was gone before the old man could answer. The morrow and the morrow's night saw that poor child plying the quick needle, whilst brother Tom guarded the chamber door, lest a gleam of the candle should betray the solitary and hidden task.

Unknown to Bridget the worthy prebend made to Captain Pathlow an offer of serving his child. But this offer was repulsed with bitter scorn. "He had rich relations," he said, "who could serve Bridget, without her being a pauper. For the rest, no one had a right to interfere."

Bridget was henceforth forbidden even to quit the house. But the six fine Holland shirts were at length completed and carried home; Tom returning the happy bearer of a bright shining piece of gold. This was soon laid out. In what! Bridget knew best, for she still worked on by night.

Returning home late one evening, the father observed the gleaming light from the lone garret window, and creeping upon the two children unseen, not only paralyzed them with fear, but hold-



ing in the candle's flame the diligent work of many weeks, the fruition of that child's earliest desire, that fruit of an honest purpose—no dainty piece of needlework was it, but the drawn image, leaf by leaf, of the curious carving—burnt it to ashes.

"If you can work," he said fiercely, "there are milliners in Lincoln who want errand girls. Ha! ha! two shillings a-week will add ale to our night's meal!"

The girl was only saved from this destiny by the arrival one Saturday, during dinner time, of a very large letter sealed with black, which, being opened, was found to have come from the elder brother, who, stating the death of an uncle, advised that Bridget should be sent immediately upon a speculative visit to the widowed aunt. This was food of a right kind to Pathlow; he began its digestion immediately. "You must say good words for us, Bridget—good words. Hint that a suit of clothes, or a five pound note, will be acceptable to me, and a new silk gown to your mother; and, in short, anything."

The girl's few miserable clothes were soon packed within one narrow box, a letter written to the guard of the coach, which was to convey her from London into the western provinces, to say that her relation would pay at the end of the journey. Dear Tom parted with a copy on paper of that rare carving, laid secretly on the prebend's reading desk, and on the morrow after the letter came, Bridget saw the last glimpse of Lincoln minster. Her eldest brother—he who had written the letter—lived in London, a gay, apparently rich, gentleman, studying, it was said, for a physician, if study he ever did; but as Bridget had been forewarned not to make her appearance at his lodgings during the day, she was forced to stop till night came within the garret chamber assigned to her at the inn where the coach had stayed. With that apology for a trunk—small as it was, it would have held the wardrobes of three Bridgets—mounted on the burly shoulders of a herculean porter, the girl found her brother's home. She had expected to see rich apartments, but none so rich as these, where, surrounded by all the semblance of aristocratic life, her brother lay stretched upon a sofa sipping his wine, and reading the evening paper.

"Well," was his greeting, "you're come;" and then he went on with his paper.

These words fell chill upon the girl's heart; but she knew she was his sister, and she knelt to kiss him. "Dear Richard, dear brother, I have so counted on this hour. They all send their love; Tom, and Saul, and —"

"There, that'll do. Go and sit down. These things are low; you must forget them all. But, fudge! how you're dressed! Did any one see you as you came in?"

The answer was satisfactory: so the reading went on.

"You must forget these Lincoln people altogether," he said after a while; "you are going to be a lady, and the memory of poverty sits ill upon such. Mind, I warn you to have a still tongue. For the rest, make yourself comfortable; say black is black, and white white. A very good maxim, I assure you, for a dependent."

"Can happiness come from such belief, or future good?" asked Bridget. "Can —"

"There, that'll do; I never discuss points with children. Talk the matter over with the next maid-servant, or reserve it for private meditation when you are upon the top of the coach."

Bridget had little to say after this, and a late hour of that same night found her journeying to the western province, where her widowed relation dwelt. At length, on the second morning after leaving London, she found herself in a country town, in a gay street, standing upon a scrupulously clean step, knocking upon a very bright knocker, not only for her own admittance, but for that of the scantily-freighted box. A demure-looking servant appeared, who, taking in to her mistress the introductory letter which the elder Pathlow had indited, being, as he had said, the fishing-hook whereby to catch the fish, left the Lincoln girl to a full hour's doubt as to whether she should have to retrace her way to Lincoln, or be received as the poor dependent. It seemed that her unexpected arrival had created much discussion; for loud voices were heard in a neighboring parlor. The dispute, rising into a storm, was only stayed by Bridget's being ordered into the presence of the bereaved widow, who, being of substantial form, sat in a capacious chair, with a plentiful flow of lawn before her weeping face. She was surrounded by several relatives, each of whom had children to recommend; but wishing to exhibit her power, and triumph over their greedy expectations, she rose, and throwing herself upon the astonished girl's neck, made visible election of a dependent. Foiled in their purpose, the relations disappeared. The widow, like a child pleased with a toy, made for a while much of the poor Lincoln girl: old dresses were remodelled, old bonnets cunningly trimmed, bygone fashions descanted on, till, to crown the whole, the girl wished back her Lincoln rags, rather than walk the streets to be gazed at by every passer-by. In this matter there was no appeal; there never is against dogged self-opinion or selfish cunning. Pleased with having one on whom to wreak a world of spite, the widow soon changed her first show of kindness to taunts, reproaches proportionate to the loneliness and dependence of the child. Months went by without one solitary gleam of happiness, for books or learning were forbidden; added to all this, too, were perpetual secret letters from her home, urging her to send money. But there was no meanness in Bridget; she could endure, but not crave unworthily. Things had gone on thus for a twelve-month, when one winter's day the widow came back, after a week's absence, a gay bride, and that same night Bridget was sent back on her way to Lincoln, with five shillings in her pocket over and above the coach hire.

Bridget had a fellow-passenger, who, having travelled far, and being young, and troubled with a child, was much pleased with the thousand little kindnesses that the girl performed, so that before the journey to London was ended, a vast friendship was established between them. They parted with much regret; for, to one like Bridget, so lonely, so destitute of friends, the mere semblance of kindness was a treasure in itself. She had sat some time in the office waiting for the Lincoln coach—not without comfort, for the book-keeper had stirred up the office fire, and, suspecting her scanty purse, had supplied her with a glass of warm ale and a toast—when a pale but respectable-looking man entered, and saying that he was the husband of Bridget's fellow-passenger, had come to offer her the comfort of his home for a day, or so, as a return for her kindness to his wife and child. After some little deliberation Bridget accepted the offer, for she dreaded to return home without having written to say that she was coming.

so an hour afterwards Bridget sat with a baby on her knee by the side of her fellow-passenger, in a comfortable second-floor room in a street leading from Long Acre. Never was such a tea prepared as on this memorable night, never such a hearth, never such a baby, never such a happy young wife, never such a wondering Bridget; for here seemed the visible presence of all riches her heart had ever craved; here, in this working-chamber of a Long Acre herald-painter. Here, too, without wealth, was the power of mind made visible; here, in this chamber of the artisan. A few cheap books nicely arranged, a few prints, rich pannelled escutcheons, and cunning tracery, that brought to mind old things in Lincoln minster, covered the walls. These things stood out like the broad written words of hope and perseverance.

Bridget had never been so happy. On the morrow a letter was despatched; but the answer was one of bitter reproach, harsh threats. It bore no invitation to return; and when it said that Tom had left Lincoln, Bridget had no desire to do so. The stay of a few days was lengthened into one of months; for when her good friends knew her history—all of it, saving her love of art—they could but pity, which pity ripening into estimation as her character became more known, turned friendship into love. We draw no romantic character, but one of real truth. Bridget was the busiest and cheerfulest; up early, so that the hearth was clean, the breakfast ready, the baby neatly dressed; and this not done for once, but always; so that Bridget became a necessary part of the household in Long Acre. By and by, when she was found to possess an aptitude for drawing, the artisan set busily to work, and by the evening fire paid back, in teaching, her honest service. An up-turned cup, a book, a jug, were drawn; and when these were perfect, things of greater difficulty were sketched. Her progress was but slow, yet so perfect, that in a few months' time she was a real help to her master; and when he fell into bad health, and had to work at home, she assisted to bring bread to that poor household. The artisan grew no better, but lingering week by week in a consumption, was each day less able to perform the work which, being of a rare and delicate kind, his master would intrust to no other hand.

One week (the week before he died) a crest of rare device had to be painted on the pannels of a rich city merchant's carriage. No hand could execute it like that of the dying man; but his hand was past work, though the mind could still invent; and Bridget who knew that but for this work being done no bread could come, knelt, and by his bed earned what was last eaten by that dying man. The work excelled the master's hope; he wondered more when, with that artisan's last breath, he learned the act of mercy, how done and by whom. Bridget reaped good fruit: when she had lost one friend, when his widow and child had left London for the country, the good old master coachmaker took Bridget home into veritable Long Acre itself. He was not rich; but paying Bridget for all her services, she had money wherewith to take new lessons in art—to begin the learning of wood-engraving, in which she afterwards rarely excelled—to lay by four bright gold pounds, as the means of seeing Lincoln once again. They had never written to her from home, never for years; but still her heart clung to those old memories which had encompassed her childhood.

She was now seventeen. It was a bright May

morning when she travelled onward to the minster town. How her heart beat audibly when, by the waning evening light, the home even of that miserable childhood was seen again. Lifting the latch, she stole into the house; but no happy voice, no greeting met her ear: all that was said was, "Well, you're come at last." But by and by, when it was hinted that the larder was empty, and the relic of those four bright pounds were seen, more civil words were heard, which, warming into a full tide of kindness, lasted, veritably lasted, till the last shilling was spent; then—then laughing her poverty to scorn, she was ordered to travel back to London in the best fashion she could.

The good old prebend was absent from Lincoln; so it was only from poor blind Saul she could borrow a scanty sum, which sum was the more needful, as she had to travel out of the high road to a little town where her dear brother Tom now lived. He had run away from home soon after Bridget had left, and after many ups and downs in those few years, was now become half clerk, half servant in the house of a country attorney. His nature was more passive than that of Bridget, more yielding, less energetic: having been from childhood weak in body, he had scarcely bettered his condition in changing one scene of drudgery for another. In the little parlor of the country inn his long sad tale of passive suffering was told to the sister's ear. If she wept, it was but for a moment; then talking cheerfully of what the future should be—how they would work together, how they would be dear friends, how they in London would have one common home, and asking nothing from the world, still pay to it one never-failing debt of cheerfulness and sympathy; how they would do all this they said so many times, that the supper grew cold, and poor feeble Tom laughed outright. They parted that summer's night; there was comfort when Bridget promised that a letter should come soon. She did not even hint the joy that should be in it.

Once more in London, she began that very week to build a home for Tom. By a little help from her Long Acre friends she procured some few pupils, whose parents being ambitious to adorn their parlor walls at the cheapest rate, had their children initiated into the mysteries of art at sixpence the lesson. Sixteen lessons a-week made eight shillings—little enough to exist upon; but it yet hired a room and bought bread, and something like the consciousness of independence. At night, too, there were hours to work in—and then the practice of wood-engraving went nimbly on.

In returning home once a-week from a distant part of London, Bridget had to pass in an obscure street an old bookstall. She sometimes stopped to look upon it; she always did so when she had seen upon it an old thumbed copy of Bewick's British Birds. In those rare tail-pieces, that never were surpassed, one who knew all the difficulties of the art found infinite delight. She was observed one evening by a gentleman who had come up to the bookstall some minutes after Bridget; like her, too, he was curious in art, and wondered what this young poor-clad female could find of interest in one or two small pictured pages, not hastily turned over, but dwelt upon long, minute after minute. He followed, but her light step soon left him far behind: he came again—there she was, on the same day week, with that same old thumbed Bewick. Weeks went by in

this manner, till the stall-keeper, remembering her often-seen face, bid her "buy, or else not touch the books again;" and Bridget, creeping away like one guilty of a misdeed, saw not that the curious gentleman had bought the books, and now followed her with speedy foot. This time he might have found her home, but that, in a street leading into Holborn, some papers fell from the little roll of drawings she carried; he stooped to pick them up—in the moment of glancing at them she was lost to sight.

Now that night-labor had made her somewhat proficient in the art, she tried to get employment; but for weeks without success. Specimens sent in to engravers were returned, letters to publishers unheeded; letters or specimens from Long Acre were of a surety inadmissible. The master who had taught her was dead. At last there was pointed out to her an advertisement in one of the daily papers, that engravers upon wood were wanted for the designs of a cheap publication. There was reference to a person of whom Bridget had heard; so, sending first for permission, she was introduced to the advertiser. A subject for illustration was chosen, and a pencil placed in her hand. When the design came out visibly from the paper, the advertiser, shaking his head, said he would consider. This consideration took some weeks; meanwhile a sleepless pillow was that of poor Bridget. At last the answer came; he would employ her, but at a very moderate remuneration. Yet here was hope, clear as the noonday's sun; here was the first bright-beaded drop in the cup of the self-helper; here was hope for Tom; here matter for the promised letter. The work done, the remuneration coming in, the fruition came; new yet humble rooms were hired, second-hand furniture bought piece by piece; and it was a proud night when, alone in her still chamber, the poor despoiled Lincoln girl thanked Heaven for its holy mercy.

The proverb tells us that good fortune is never single-handed. On the morrow—it was a wet and rainy day—Bridget, in passing into Spring Gardens, observed that the stall of a poor lame apple woman had been partly overturned by some rude urchin. She stopped to help the woman, and whilst so doing, a very fat old gentleman came up, and looking, very quietly remarked in a sort of audible whisper to himself, "Curious! very curious! this same very little act of mercy first introduced me to my excellent Tom: ay! ay! Tom's gone; there is n't such another from Eastcheap to Chelsea."

The name of Tom was music to Bridget's ears. The old gentleman had moved away; but following quickly, Bridget addressed him.

"I have a brother, sir, whose name is——"

"Tom," interrupted the old gentleman; "find me my Tom's equal, and I'll say something to you. Here is my address." He thrust a card into Bridget's hand, and went on. Here was a romantic omen of good for Tom.

That same night the letter was indited. Two days after, the country wagon deposited Tom in the great city. An hour after, he sat by Bridget's hearth.

"This night repays me for all past sorrow," said the sister, as she sat hand in hand by her brother's side. "Years ago, in those lonely winter nights, something like a dream of this same happy hour would come before me. Indeed it did, dear Tom."

Each thing within those same two narrow rooms had a history; the cuckoo clock itself would have furnished matter for a tale; the six chairs and the one table were prodigies.

On the morrow, Tom, guided by the address, found out the office of the fat old gentleman, who, being a bachelor and an attorney, held pleasant chambers in Clement's Inn. Whether induced by Tom's appearance or his name, we know not, but the old gentleman, after certain inquiries at the coachmaker's in Long Acre, took Tom for his clerk at the salary of six shillings a-week.

We must now allow weeks to pass by. In the meanwhile Bridget's work increased, though not the money paid for it. Yet out of these same earnings a small sum was laid by, for what our Lincoln girl breathed to no living ear. About this time better work was heard of, but application for it, through the person who employed her, failed; how, she knew not. If I had a friend, she said, I might succeed; and though Richard has passed me in the streets unheeded, still I will make one last appeal to him. She went, not in rags, but decently attired.

"That you are rich, and above me in circumstances, I know, Richard," she humbly said; "hitherto you have scorned to own one so poor; but as I have never wronged you or your name, you will perhaps say that I am your sister?"

"I made your fortune once," he bitterly answered; "of your *honest purposes* since then I know nothing. For the rest, it is not convenient for a man in my condition to have pauper friends—you have my answer."

"Brother," she said, as she obeyed the haughty gesture that signaled her to leave the room, "may you regret the words you have so harshly spoken. For the rest, believe me I shall yet succeed, in spite of all this opposition."

The peace of Bridget's home was now broken by weekly letters from Lincoln for loan of money, which applications being successful for a few times, only made the letters more urgent and pressing in their demands.

Some months after Bridget's interview with Richard, there sat one winter's evening in the study of a celebrated author three gentlemen. The one was the author himself, as widely known for his large human loving heart as for the books he had written. He had now been for some days translating a child's story from the German, a sort of spiritual child's book, like the *Story without an End*.

"Were this book illustrated by one who had the same self-helping soul as its author, the same instinctive feeling," said the translator to one of his friends, "it would indeed be priceless. I have sometimes thought none but a woman could catch the simple yet deep maternal feeling that lies in these same pages; but where is——"

"There is a woman capable of this," said one of the friends, turning to the author; "beyond all doubt capable. Look here."

He drew forth from a pocket book the very papers which two years before Bridget had lost.

"You say true," answered the translator; "but what is this; it seems like the copy of some carved foliage, some——"

"This must be Bridget's," interrupted the other guest, leaning across the table with anxious face (for it was no other than the minster prebend); "I see it is; yes, yes, a copy of the antique carving from the minster wall. Good things have been



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skins almost fair enough for Europeans, that peep laughingly forth from the crimson hangings or the green venetians of a native carriage, drawn by a pair of sturdy and milk-white bullocks, adorned with embroidered housings and silver necklaces:—these are Parsees. The gentleman has probably left his country-house to consult a European lawyer in the town, while the children seek the environs, and the festive entertainment of a friend.

Again: here and there appears, marked like a blot among the rest, a thin, sallow, black-haired being, with a round white hat, puckered trousers, yellow waistcoat, and gilt watch-guard; he carries in one hand a small switch, and in the other a little bundle tied in his checked handkerchief, smoking a cigar as he strolls along. By his side is a short, stout woman, with coarse but curling black hair on her otherwise uncovered head; a gay petticoat, somewhat short, a crimson shawl, and a necklace of large blue beads, form her costume:—these are Portuguese, and of the rank commonly encountered.—*Mrs. Postans.*

#### A TASTE OF PUNCH.

“WITH VERDURE CLAD.—In Pennsylvania there is a detachment of Irishmen called “The Hibernia Greens.” This would not be a bad title for the contributors to the repeal fund.

EDUCATIONAL HANDKERCHIEFS.—We have seen with considerable satisfaction that the schoolmaster has been abroad even to the bandannas—or, in other words, that fine moral lessons are imparted through the medium of silk pocket handkerchiefs. Instead of the old unmeaning bird’s-eye pattern, by which the *mouchoir* was formerly adorned, we have a series of highly finished designs illustrative of “great facts” in reading, writing, or arithmetic. Science of every description is now taught through the medium of the pocket handkerchief, and learning is thus thrust under the very nose of the public. Some were inclined to think that pocket handkerchiefs applied to science, would be the means of giving it a very severe blow; while others believed that the plan would be sure to succeed, for the public are easily led by the nose, and a great moral truth is never so well inculcated as when it is nicely wrapped up in the folds of a silk pocket handkerchief. It is true that philosophy is not a thing to be sneezed at, and the lights of the age might stand a chance of being snuffed out, if the pupils took snuff while using the handkerchiefs on which the glorious coruscations of the luminary in question might be emblazoned. We are, however, happy to find that the experiment is to be tried, and we are enabled to state that a primer has been prepared, in a series of two handkerchiefs, one in use and the other at the wash, according to the custom of most economical families.

A geography will be comprised in a set of four handkerchiefs, so that the student may wipe away the dust from his forehead with a map of his native land, and he will thus be able to keep England in his eye as long as he may find it convenient.

An arithmetical series will also be very interesting; and that this idea can be carried out is easily proved by the fact that the pocket handkerchief has often served for working various lessons in subtraction, some of which have required considerable ingenuity.

Law may also be inculcated in the same manner, and as it is often paid for through the nose, it

may surely be acquired through the pocket handkerchief. We understand that the series will be placed under the superintendence of the editor of the *Metropolitan Magazine*, who is likely to produce a dry soft article, extremely well adapted to the purpose.

THE BONDS OF FRIENDSHIP.—The Pennsylvanians have been shedding each other’s blood. This is the last method they have adopted for “paying people off.”

THE MINISTERS’ HOLIDAY LETTERS.—The following holiday letter, written in consequence of the approaching vacation, has been forwarded by Sir Robert Peel to his Tamworth constituents, whom he has always regarded as his political parents:—

“MY DEAR PARENTS,

“I write with much pleasure to let you know that our vacation will commence next week, when I hope to see you in good health.

“I think you will be satisfied with my progress, and though I have not been fortunate enough to get many good marks, I have had a very few crosses.

“I have had some very hard French lessons in the course of the half year, and I have got a very difficult one for my holiday task, but I shall do all I can to beat Master Guizot.

“I have got on very well with my arithmetic, though at the beginning of the half year I had a good deal of trouble with compound fractions. I have thrown off weights and passed measures; but I have skipped corn-measure, because of its being so very difficult.

“My geography has given me a good deal of trouble, particularly India, which I nearly got punished for, through the fault of another boy named Ellenborough. But Ellenborough has been turned back; and now that he is out of the class, we go on a great deal better.

“I have not spent all my money, but have got a large surplus; which Mr. Bull, my master, says is much more praiseworthy than what was done by those naughty boys, Master Melbourne, Master Monteagle, and Master Russell, who spent all the money they had, and got into debt very much besides.

“In my drawing, I have done very little; but I have got a good many pretty designs, and I hope next half year to finish them.

“Our vacation will end at the usual period; and

“I remain, my dear parents,

“Your affectionate offspring,

“ROBERT PEEL.”

FROM LORD ABERDEEN.

In order to show the proficiency he has acquired in French, Lord Aberdeen has written his holiday letter in that language.

“*Mes chers Parents,*

“*Je suis heureux (I am happy) de vous dire, (to tell you,) que notre saintes jours (that our holy-days) sont bien près à la main (are very near at hand.) J’écris celui ci lettre (I write this letter) en Français (in French) en ordre de vous montrer (in order to show you) comme j’ai obtenu en avant (how I have got on) dans mon Français (in my French.) J’ai eu un dur tirage (I have had a hard pull) avec Maître Guizot, (with Master Guizot,) qui a essayé diaboliquement dur (who has tried deuced hard) d’obtenir le mieux de moi (to get the better of me.) Je crois, pas-avec-restant-debout (I think,*

not-with-standing,) *que je serais un allumette* (that I shall be a match) *pour lui* (for him.) *Il n'est pas allant* (he is not going) *de faire un fou de moi* (to make a fool of me.) *Il me prend pour une jean âne* (he takes me for a jackass,) *mais je suis rien de l'espèce* (but I am nothing of the sort.)

"*Toujours, mes chers parens* (always, my dear parents,)

"*Votre affectionné soleil*, (your affectionate son,)  
"*Doyen d'Aber* (ABERDEEN.)"

FROM SIR JAMES GRAHAM.

"MY DEAR PAPA AND MAMA,

"I am very glad to tell you that the holidays will begin next week.

"I am very sorry to say that my master, Mr. John Bull, is not pleased with me, and I have been in a great deal of disgrace about my letters.

"I hope when I go back to school I shall be a better boy, and I remain,

"My dear parents,

"Your undutiful, but repentant, child,

"JAMES GRAHAM."

THE PHILOSOPHER STONE.—There is a "CLUB DES INVENTEURS" just established at Paris, for the purpose of encouraging discoveries. Let us propose that the first premium be awarded to the person who discovers an article in the French press that is written with the least good feeling towards England.

THE TYPE OF A FRENCH PRINCE.—THE COMTE DE PARIS has a small printing-machine fitted up in his room. LOUIS PHILIPPE is determined his successor shall learn at an early age the necessity of having the press continually "under his thumb."

CAPTAIN PRUDENCE.—By the version given in the *Emancipation de Toulouse* of the late occurrences at Tahiti, we learn that the French vessel, the *Phaëton*, "passed along the coast on her return, throwing shells on all the houses within her reach." Gallant *Phaëton*!

Whilst, however, pursuing this generous mode of warfare, the heroes of the *Phaëton*—"perceived with astonishment two intrenchments, sufficiently capacious to shelter 200 combatants, whose heads appeared above the parapet. \* \* \* Some Europeans, who appeared to command them, came to the shore to challenge a landing. Prudence commanded nothing should be done." Cautious *Phaëton*!

"Prudence commanded that nothing should be done." Prudence, then, was commanding-officer. Commend us to Captain Prudence. We must suppose, however, that whilst the *Phaëton* was throwing shells on the houses of the defenceless Tahitians, Captain Prudence was taking a nap in his hammock; the vessel being under the direction of Lieutenant Cruelty.

Captain Prudence, we find, was—"satisfied with sending them some broadsides, which appeared not to frighten them, as they did not stir."

Much, we apprehend, to the astonishment of Captain Prudence, who, no doubt, under similar circumstances, would have run away as fast as his legs could carry him.

A CHANCE LOST.—Mr. Punch, in respectfully congratulating his Royal Highness Prince Albert upon the birth of his royal son, cannot but point out with a mournful satisfaction a suggestion which was offered to the government by Mr. Punch himself.

Mr. Punch insinuated (as well as the delicacy

of the august subject permitted) the propriety that her Majesty should visit Ireland, and that an Irish prince be born there.

Had this humble suggestion been followed, the Duke of York would have been born in Dublin on the birthday of Daniel O'Connell.

And the little new-comer might have asked a holiday for the old one, and the Queen might have numbered one loyal Irish subject more.

HORRIE INMATE.—A gentleman in this city has a letter from his brother, dated at Isle Royal, in Lake Superior, detailing the following story: A man and his wife, a half-breed, were left on the island last fall by the locaters of copy-rights or leases, to keep good their possession. The Isle Royal is about twenty miles from the British Northern shore. It is about forty miles long, and but a few miles in width. This man and woman were the only inhabitants of this solitary land during the severities of winter. On the 5th of March the man died. The writer of the letter arrived there on the 27th of April, in an open boat, from Isle of Pointe. They found the woman still in the cabin where the two had lived, and the CORPSE OF THE MAN still in the bed where he died! The purity and cold of the atmosphere had prevented the decay of the body, and the lonely woman had been unable or unwilling to remove it. Nearly two months had she lived and slept in the same cabin with her dead husband, when the party arrived and buried it. The forms of a Christian burial were observed, although but one of the party understood the English language.

LAKE SUPERIOR is four hundred and ninety miles in length and seventeen hundred in circumference, being the largest body of fresh water known. It contains many islands; one of them, the Isle Royale, is one hundred miles in length and forty in breadth. Upwards of thirty rivers empty themselves into the lake. The country, however, about the whole region is said to be poor, and not very inviting to the emigrant. The emigration and improvements now in progress on the borders of the great inland sea, will at all events lead to the establishment of a few towns and villages on its borders. The land is not so good, it is true, as that on the other lakes, but it can be had cheap, and made to yield fair crops.

MAN AND HORSE KILLED BY BEES.—One day last week, a horse belonging to Mr. Uppinden, farmer, strayed from his yard into the garden of Mrs. Cox, adjoining, and kicked down a hive of bees, which instantly attacked him with great fierceness. The poor horse kicked and plunged violently, and a man named Blunt, a shepherd, who happened to be in Mrs. Cox's house, went to its rescue. He succeeded in getting hold of the horse, but had scarcely done so, when the bees attacked him, covering his head, face, and every exposed part of his body. It was in vain he strove to beat them off. Wet cloths were flung over him, and other appliances resorted to, but it was a long time before the enemy left him. The unfortunate man was conveyed to his home, but died on his way thither within ten minutes of the attack. The horse died the next evening. An inquest was held on the body of Blunt, and a verdict returned according to the circumstances. The deceased has left several children to lament his untimely end.—*Cambridge Independent*.



*The Wars of Jehovah.* By T. HAWKINS, Esq. Illustrated by Martin. Baisler. London.

MR. HAWKINS is a gentleman who has acquired some degree of fame by a work on the Iethyosauri, which used to startle passers-by from the windows of the booksellers, in consequence of a large plate by Mr. Martin, in which the antediluvian monsters were represented, not in their fossil condition, but rejoicing in a state of hideous vivacity. Mr. Hawkins now comes before the public with an epic, kindred in subject to the warlike part of *Paradise Lost*, dedicating the same to the queen, in the hope that it will serve as a mark "for her Majesty's reign unto the latest posterity." That diffidence which has prevented the perfect development of many an exalted genius is, happily, no impediment to this author. He hopes that future ages will talk of the reign of Victoria I. as "the times of Thomas Hawkins."

Mr. Hawkins' poem is the darkest, without exception, we ever read. There is not an obscure passage in the *Agamemnon* of *Æschylus* that is not light and easy in comparison. We unhesitatingly confess that we have read some of Mr. Hawkins' pages without more approach—we do not only say to the understanding thereof, but to the perception of the syntactical construction—than if we had pondered over Babylonish bricks. It has at times seemed to us as if primeval chaos would have sung such lays for the edification of night. As a trustee may be required to hand over to a *cestuy qui trust* some valuable document in a language whereof he is ignorant, so do we give our readers a specimen of the gigantic poem of Mr. Hawkins. *Sacrael*, an angel, delivers the following eloquent speech after the fall of *Lucifer*. *Gloriel*, we should premise, is another angel:—

Oh, angels, deem not thirst  
Of knowledge criminal, since one thereby  
Alas! is lost; the all-creator none  
Denying that he slake, where'er he will,  
Of the innumerable springs, *Gloriel*—  
As well as the arch-gerent, hath his faith  
Thereby enhanced. Beyond yon arch concave  
I, too, have soared, and depths as they are high  
Sounded abstruse, disputing till I failed,  
In dizzy sort returning back to God  
For my refreshment, upon bended knee,  
Asking the rule which never was refused.  
But this observe, knowledge the rule of life  
Serves not, and for its own particular sake  
Is worthless; the last problem in the school  
Is like the last mechanically solved;  
Practised the whole to the original  
We are returned, otherwise the arch  
To him the consequence. Ye cherubim,  
Contented with the alphabet, as blest  
Are ye as the archangels studious  
Of mightiest magnitudes, unto his cost  
A greater and with no advantage we.

Does any one of our readers understand the construction of the last four lines? If he do, we congratulate him. We are content to be ignorant and admire. By the way, we had forgot that Mr. Hawkins, in his "Advertisement," declares that a day is to be treated in this poem as if it were a thousand years; and that the word "earth" is to be considered as denoting not the globe in which we live, but the aggregated matter of our solar system when in a state of utmost expansion. Surely when we fly so high, we have a manifest right to forget such a human littleness as Lindley Murray.

He that would enjoy Mr. Hawkins' poem must be a tremendous scholar. All the mythologies must be at his fingers' ends,—the Eddas and the Puranas must alike have been mastered, with the whole dark mass of classic erudition. This epic bristles with allusions, like the elegies of Propertius, only they are sixty-fold more recondite.

Mr. Hawkins has a great dislike for common forms of expression; he likes to say "aurine" better than "golden;" the "firmamental" is in his eyes a better word than the "firmament;" the "constitutional" superior to "constitution." He also displays that cosmopolitan spirit, without which world-celebrity was never attained, by crossing the Atlantic for expressions, and we are regaled with the word "Britisher." It is by such means as these that language is enriched.

A list of objects, or proper names, following in uninterrupted succession, is, according to Mr. Hawkins' theory, most grateful to the poetical reader. We consider this specimen of its kind unique:—

Oh, fold mine eyes, Calliope! I scarce  
Endure thy catalogue,—acanticone,  
Alalite, analcine, augite, bildstein,  
Botryolite, cornelian, celestine,  
Datolite, dypore, moonstone, pyrochlore,  
Plasma, prase, pyrope, quartz, scherbenkobalt,  
Sideroschizolite, sun-opallite,  
Talc, telluret, tincal, endellion, &c.

Homer's catalogue of ships, and the list of nymphs in Hesiod's *Theogony*, are noble precedents for this sort of thing, as of course it would be cavilling to object that these were eminently connected with the subjects of which the old Greeks sung, while a list of minerals is not so essential to Mr. Hawkins' epic. If admired by the public, it will open a large and wide field for future epic writers, for we do not know a man who can write an auctioneer's catalogue, who may not be supposed to participate in such "divine fury."

Mr. John Martin has illustrated Mr. Hawkins' epic by eleven of his peculiar mezzotints, in which figures are but little thought of, and every attention is paid to flashy effect. We need not tell any one that the black masses predominate, and that the lights dart through them to make the gloom more horrible, just as a tolerably intelligible line in the epic occasionally breaks upon the sublimely obscure sentences, to render the obscurity more awful. Those who cannot recognize the close affinity between Plate I. and the whole of the epic, the same fruit of inspiration welling forth in the two sister arts—painting and poetry—have no feeling for this great literary event of the reign of Victoria.—*Atlas*.

FRENCH PRESS, AND THE TIMES.—One of the great defects of the French press (says the *Revue de Paris*) does not consist in its not having accredited correspondents in the principal cities and towns of foreign countries; it lies in its overlooking the valuable and often unknown information to be derived from the European press. The *Times*, for instance, is the best-informed journal published in the two hemispheres. It receives from Marseilles by special courier despatches from India long before they reach government. There is no large city in Europe or America in which it has not a correspondent—not one of those Parisian correspondents, who write from a Divan in the Palais Royal that which is passing in the Divan of Constantinople, but a real and well-paid representa-

*tive, who has nothing else to do than to procure intelligence and forward it regularly.*

These reflections were suggested to us a few days ago by the perusal of a letter, written from Algiers to the *Times*, and which was lost in the immense columns of that journal. The English correspondent gave curious details on our African possessions. He affirmed that the authority of France was extending and consolidating itself daily in the country—a fact, he observes, that the English will not credit.

Did our Parisian contemporaries pay the slightest attention to that letter? Have they a single correspondent in Algiers to furnish them with such intelligence? No; but, on the other hand, *they engage a special train to anticipate the ordinary mail, and to be able to inform Paris, France, and the whole world, twelve hours beforehand, that the late M. Lacoste was poisoned with arsenic, if, however, he did not die of hernia.*

**AMERICAN AND ENGLISH ACCIDENTS.**—One of the most characteristic features of an American newspaper is the blunt and philosophical conciseness with which it records those fatal casualties which generally form the staple of small paragraphs. Not a word of sympathy or gradual sloping towards the fatal catastrophe with which the English penny-a-liner usually breaks and softens down the sorrowful intelligence, but it is blurted out with an almost indecent parsimony of words, the only symptom of the writer possessing ordinary human feeling being the heading of the article, with the simple adjective “melancholy,” and even this sparing tribute is a rare exception. Take the following for instance:—

“Sunday morning week, John Harriman was drowned in the Kennebec River, near the Arsenal at Augusta. He went in with others to bathe, but did not know how to swim.”

Now, had it fallen to the lot of a cis-Atlantic reporter to record this occurrence, his relation of the fact would have been probably in this fashion:—

**FATAL ACCIDENT.**—On the morning of Sunday week, a young man named John Harriman proceeded with some of his friends to the Kennebec River, near the Arsenal at Augusta, for the purpose of bathing. It appears, however, that he was unable to swim, and having got out of his depth, the unfortunate young man sunk to rise no more. His body was shortly after recovered, and every effort made to revive him, but the vital spark was extinct. He was a young man of great promise, and the melancholy accident which so suddenly terminated his existence threw his parents into a state bordering on distraction.—*Atlas*.

#### RIGHT OF VISIT.

**THE LATE COURT-MARTIAL ON LIEUTENANT GRAY, R. N.**—The following despatch, addressed by the Earl of Aberdeen to Count St. Aulaire, will explain the circumstances under which the late court-martial was ordered by her Majesty's government:—

“THE EARL OF ABERDEEN TO COUNT ST. AULAIRE.

“*Foreign-office, June 23, 1843.*

“The undersigned, &c., has had the honor to receive the note addressed to him on the 2d instant by his Excellency Count St. Aulaire, &c., respecting the proceedings of her Majesty's ships

Bonetta and Spy, towards the French merchant vessel the Luis de Albuquerque, Captain Bellot.

“In that note his Excellency, referring to the statements contained in the enclosures to his Excellency's communication, informs the undersigned that he is directed by his government to require—first, that her Majesty's government will disavow the conduct of her Majesty's officers in searching the Luis de Albuquerque without warrants; and, secondly, that they will institute an inquiry into the irregular proceedings with which her Majesty's officers and men are charged, in order to ensure their punishment, if punishment should be due, and to prevent a recurrence of the irregularity complained of.

“With respect to the first point, the undersigned at once assures Count St. Aulaire that her Majesty's government have no intention to uphold or defend the conduct of any officer in her Majesty's service who shall search a French vessel without a warrant from the French government authorizing that step; inasmuch as her Majesty's government consider such a proceeding is not only not sanctioned by the treaties which exist between the two countries, but that it is in direct contravention of their spirit.

“With respect to the second request contained in the note of Count St. Aulaire, the undersigned begs to inform his Excellency that orders have been given to institute, without delay, a strict investigation into the conduct of the persons charged with committing irregularities on board the Luis de Albuquerque; and that if misconduct should be proved on the part of any person in her Majesty's service, it will be visited with proper punishment; and that measures will be taken to prevent its recurrence.

“The undersigned, &c.,

(Signed) “ABERDEEN.

“His Excellency Count St. Aulaire, &c., &c.”

#### THE CASE OF LIEUTENANT GRAY.

We should be very glad to believe that it is not the policy of our government to truckle to that of France; but we really find it difficult to come to such a conclusion in the face of certain facts that have a directly opposite tendency. Lieutenant Gray was brought, a short time ago, to a court-martial, on the charge of having disobeyed orders on the coast of Africa, by causing a vessel to be searched which proved to be a French one, though there was every reason to infer at the time that the colors she displayed were not the proper ones. The verdict of the court-martial caused the greatest astonishment to all who heard the evidence; and, indeed, if the result of the trial is to guide our naval officers in the course they pursue, there is an end to all hope of the suppression of the slave-trade.

A vessel, having every appearance of one engaged in the nefarious traffic, was observed by Lieutenant Gray on the coast of Africa, and he accordingly gave chase to it. The French flag was hoisted, a manœuvre which he naturally believed to be a trick that is very commonly resorted to. He consequently caused the suspected vessel to be boarded and searched, when he discovered she was in reality French, but every appearance justified the presumption that she was actually fitted out for the infamous traffic of which Lieutenant Gray was employed in the suppression. Nevertheless, being unprovided with a French

warrant, he at once ceased from further interference when he found the vessel was really French. For this he was brought to a court-martial, and for this he was sentenced to a very severe reprimand.

Of course, it will be a matter of the utmost risk to search for the future any ship whatever which displays the French flag, an article which no slave vessel will hereafter go unprovided with. It is settled by an English court-martial that such is the inviolability of the flag of France, that no naval officer of Great Britain dare satisfy himself that it is not used as a cloak by those who have no right to it. If France herself had made such a demand in favor of her flag, we should have regarded it as a most unwarrantable assumption, to which England ought not to yield; but when an English court-martial volunteers to establish the principle of unqualified reverence being due, under all circumstances, to the flag of France, we scarcely know how to express ourselves on such a humiliating circumstance. It had been hinted that Lieutenant Gray was sacrificed by our government to the unreasonable arrogance of France, a supposition which was met by a strong and unqualified denial on the part of the ministry. What, however, is to be thought, when a correspondence comes to light, in which a demand is made by M. Guizot, and acceded to by Lord Aberdeen, that a court-martial shall be held with reference to the above affair, and that punishment shall be inflicted where it is merited! We see no reason why inquiry should not be sought on the one hand, and granted on the other; but suspicion is naturally awakened when it is denied that such a demand has been made, and it turns out that it has not only been made and acquiesced in, but that a verdict, which has astonished every one by its severity against a British officer, has been the result of the court-martial insisted on by the French government.—*Atlas*.

From the London Atlas.

#### MEDICAL REFORM.

THE ancient determination of Macbeth to "throw physic to the dogs," to the great annoyance of the medical gentleman attached to his household, appears likely to be carried into effect in modern times, by Sir James Graham, who is preparing a bill, which, to judge from the numerous complaints against it in all quarters, appears far more nauseous to the community, and especially the doctors, than their own physic.

As there is still some time before it will be brought forward, we hasten to lay before the public our own measures, which will be found, as they always are, to be the best. And we do this from a conviction of the great benefit which will accrue to everybody should our bill be adopted. We term it

#### AN ACT FOR AMENDING THE PRESENT STATE AND USAGES OF MEDICAL EDUCATION THROUGHOUT GREAT BRITAIN.

Whereas, it having been discovered that the presumed imperfect state of the medical profession is the result of the ineffective and eccentric system of education pursued preparatory to entering into practice:

And whereas, it being proved by experience that the laudable advice as to their curriculum of study given to students by the professors in their intro-

ductory lectures, as well as the perusal of good books, and attentive imbibition of moral counsel goes equally in at one ear and out at the other;—in consequence, the whole course requires to be changed.

May it therefore please your Majesty that it may be enacted: *And be it enacted*, that no student of medicine be admitted to practise without complying with the clauses hereafter specified:—

*And be it enacted*, that on and after the first of October next no students walking the hospitals, which at present signifies walking anywhere else, be permitted to study anatomy, only at taverns of advanced hours, in the shape of chops, kidneys, and grilled bones. Nor shall demonstrations of muscular physiology take place under the piazza, upon emerging therefrom, instead of at the school, at 11 A. M.; nor shall botanical investigations be confined to subsequent vague and unsteady wanderings amongst the vegetables of Covent-garden market; neither shall the principles and practice of surgery be comprised in the fracture of knockers and dislocation of bell-pulls, or amputation of one's stick consequent thereon.

*And be it further enacted*, that in the dissecting-room no student shall make his "subject" assume a jovial and festive appearance, by the introduction of a short clay tube, of the species used for the inhalation of narcotic weeds, into his mouth, and a liquid measure of alloyed metal, to the extent of a quart, into his hand, each proceeding being manifestly unseemly. Nor shall industrious pupils be assaulted by cinders, masticated paper, and pieces of the aforesaid tubes, stealthily projected at them from hidden assailants; nor shall their cases of instruments be clandestinely removed during their absence, and delivered, for a small consideration, to the care of an avuncular neighbor: nor shall the proceeds of such deposit be spent in beer, of which the aforesaid industrious pupil shall be invited to partake, with great courtesy and warmheartedness, preparatory to his receiving the certificate of such transfer, in the shape of a small card, an inch square, with printing and writing thereon, by the penny-post, on arriving at home that evening.

*And be it further enacted*, that cribbage, odd man, and other games of chance, usually played during lecture, under cover of a Mackintosh hung over the desk in front, be entirely abolished; and that those going round the wards of the hospital with the medical officers be compelled to have some other object in view beyond winking at the female patients with comely faces and lace-bordered night-caps. Nor shall the students be permitted to execute cartoons with the burnt end of a walking-stick upon the ceilings, whenever it is practicable, embodying the supposed likeness of the Professor of *Materia Medica*; neither shall they engrave diagrams with a penknife upon the lecture-room desks, of an idle and vain tendency; nor carve mottoes thereon, in the same fashion, manifestly ill adapted for a drawing-room table or a young lady's album.

*And be it further enacted*, that rough coats, large buttons of penny-piece dimensions, broad brims to hats, and thick hooky sticks, be no longer standards of fashion among the students; nor shall walking six abreast in great thoroughfares, singing songs of all chorus and no words, be considered the "ticket";—*ticket* being a synonym for style, mode, or distinguished manner; and being commonly superseded by the words, "the cheese,"



"the dodge," "the thing," "the mark," *cum multis aliis.*

And be it further enacted, that the skeleton, hung by a balance weight in the anatomical theatre, shall in future be sacred from all pleasant frivolities, such as tying his thumb to his nose by bits of ligature silk, articulating his legs to his shoulder blades, and hanging his arms to his hip-joints; decorating him with paper shirt-collars, and the waterproof blue capes of pupils from the country; seating him, in a pensive attitude, on the top of the stove, in the act of masticating a piece of coke, or the handle of the short broom used to dust the preparations; or causing him to occupy the chair of the professor just before lecture: all such proceedings being calculated to throw doubts upon the popularly supposed gravity and ennobling tendency of a medical education.

And be it further enacted, that all jokes at the expense of the hospital functionaries, from persuading or bullying the messenger to ask for strawberry ice creams at the nearest ironmonger's, to sending the matron a barrel of oyster-shells, with the secretary's compliments, or an offer of marriage from the house-surgeon, be declared exceedingly improper.

Saving always, that the aforesaid students, with their accustomed sturdiness do not choose, under any circumstances whatever, to conform with the above regulations, under which circumstances, there is no other option than allowing them to go just as they hitherto have done.

Thus far, we present the reader with our ideas of what the Medical Education Bill ought to be. In our next, we may possibly give some additional clauses for reforming the usages and conventional habitudes of medical men when settled in practice.

LONDON ASSURANCE.—We copy the following modest advertisement from the columns of the *Times* of the past week. We beg our readers to peruse it attentively:—

"TO any MAN of FORTUNE wishing to travel, either for his health or his amusement.—Dear Sir: If you are in need of an agreeable, well-informed, and highly honorable man, who, being a skilful surgeon, could attend to your health, and, what is of as great consequence, by cheerful companionship make you forget that you have a single ailment in the world—one who, though not quite as rich as yourself, possesses equally as gentlemanly a feeling, yet who would have no objection to exchange with you the various benefits he could confer for liberal treatment at your hands, and to run with you half over the world, or to play a game at chess with you at your own home, or hunt or fish, as may be agreed on—should you like this frank and fair offer, (and you will never get such another,) reply to the following address as one honorable man should ever write to another, and you shall have no reason to repent having done so. I am, dear sir, your obedient servant, Medicus.—Address, &c. &c."

We do not give the precise address of the advertiser, or we should be liable to the duty, and also culpable for aiding such unparalleled effrontery. We already picture *Medicus* in our mind's eye: he is one of that dreary class of strugglers at vivacity whom the world knows as "capital fellows." He is "agreeable;" that is, he has been used to filling the post of buffoon of private life in the limited *coteries* of his connexion. He

is "well informed;" tact has supplied the place of education—the readiness of comprehension peculiar to his class enables him to answer remarks in random plausibilities. He is "highly honorable:" has there been a living man, since the self-torturing sophist of Geneva, who, blowing his own trumpet, would not claim to himself this attribute? Well can we imagine, from his vulgar letter—contemptible from its essence of familiarity—what sort of a travelling companion *Medicus* would be. He would poke his funniments into your ribs at the most inappropriate times, and drowning in his own pathos, clutch at the straws of thrashed-out jokes to buoy up his character of a "cheerful companion." It is evident he wants not a kindred spirit to elicit his humor: he knows not who may choose him, but he can be jocular to order like a writer of burlesque, or a contributor to a comic magazine. And then his versatility of social endowments. He can travel or play chess—hunt or fish, "as may be agreed upon." Rare union of tastes! Let him, in addition to this, study the lessening of expense to his employer—the "man of fortune" who takes him, as rich men of old did their paid fools and jesters—and propose the chasing of toads. The captured reptiles would form for him a cheap and appropriate nutriment.—*Atlas.*

CURIOSITIES FROM ICHABOE.—By one of the laborers belonging to the ship *Bradshaw*, lately arrived in this port from the island of Ichaboe, we have been favored with the inspection of some of the remains of those birds whose deposits now constitute so useful and profitable a commodity to the inhabitants of this country. There is the skeleton of the gannet bird, together with two eggs, in an excellent state of preservation, taken at a depth of 28 feet below the surface of the guano, where they have doubtless remained for hundreds of years. The eggs are about as large as those of the goose, and the bird resembles in size the same fowl. There is also the skin of one of the penguins, which has not been buried, and a specimen of the genuine, unadulterated manure. The skin much resembles that of the seal.—*Liverpool Mercury.*

INGENIOUS PIECE OF MECHANISM.—A very beautiful clock is to be seen in the shop of Mr. Johnson, watchmaker, High-street, Lincoln. It consists of a representation, in copper, of Frisbourg on the Rhine; below is seen the old road and bridge, on which luggage carts, coaches, and pedestrians, are travelling; an old water mill, which turns round also: above, on a suspension-bridge, carried from rock to rock, is a railroad, on which a passenger and luggage train are continually running; near one end of the bridge a windmill is at work. The houses, castle, &c., at Frisbourg are accurately copied, and on the castle front is the clock face. The clock goes for 21 days, and the hours are struck on a most musical-toned bell, resembling in tone our Great Tom of Lincoln—if, indeed, a comparison between bells, one so large and the other so small, may be allowed. Four tunes are also played—two pretty French airs, *Jim Crow* and *Nix my Dolly Pals*.

PROLIFIC WHEAT.—Mr. Stockford, of the Ox-Stalls Evesham, has this year grown some of a new wheat, called the "*Baratta*;" and last week on gathering a single stool or root, he found that it consisted of seven ears, each containing 80 corns, thus giving a produce of 560 from a single grain.—*Worcester Journal.*

CURE FOR WITCHCRAFT AMONGST THE CAF-  
FRES.

THE Cape frontier papers relate a horrible instance of the manner in which witchcraft is treated by the chiefs of Caffraria. In August, 1843, the chief Umkye, living in the neighborhood of Fort Peddie, was taken ill, and not speedily recovering, his council voted that he was suffering under witchcraft. A witch-doctor was employed, who indicated one of the favorites of the chief as the magician. He was accordingly seized, and sentenced either to "discover the bewitching matter," or to be put to the torture. As he could not do the first, he was about to be subjected to torment, when he escaped. "Another victim was soon selected by the doctor, said to be an accomplice of him who had made his escape. The executioners were more on the alert in this case than to allow of his escape. He was ordered home to dig up the bewitching matter; but failing to produce what was required, and denying his guilt, he was put to the torture. The act of laying the victim, in a state of nudity, in the burning sun, on his back, preparatory to the hot-stone and slow-roasting process, now took place, and a nest of black ants was strewed over the whole body. This put the poor victim to the most excruciating pain, and the torture was the greater from his being fastened by his hands, feet, and hair, to pins driven into the ground, and so unable to stir. In bringing him to the place of torture, he had been beaten most unmercifully; so much so, that his jawbone was broken, and the larynx severed, so that he no longer breathed through his mouth, but through the opening thus made in the windpipe. The natives themselves describe his appearance at this time as most horrifying. His tormentors, however, found in this circumstance an additional facility for torture, and they filled the wound in the throat and the mouth, &c., (which they had previously gagged) with the biting ants! Thus he lay tormented, and while they were procuring fresh ants, he sunk under his torture."—*Asiatic Journal*.

## NEY'S CHARGE AT WATERLOO.

BY CAPT. SIBORNE.

WHEN the tremendous cavalry force, which Ney had thus assembled, moved forward to the attack, the whole space between La Haye Sainte and Hougoumont appeared one moving glittering mass; and as it approached the Anglo-allied position, undulating with the conformation of the ground, it resembled a sea in agitation. Upon reaching the crest of the ridge, and regaining temporary possession of the batteries, its very shouts sounded to the distant ear like the ominous roar of breakers thundering on the shore. Like waves following in quick succession, the whole mass now appeared to roll over the ridge; and as the light curling smoke arose from the fire which was opened by the squares, and by which the latter sought to stem the current of the advancing host, it resembled the foam and spray thrown up by the mighty waters as they dash on isolated rocks and beetling crags; and as the mass separated and rushed in every direction, completely covering the interior slope, it bore the appearance of innumerable eddies and counter-currents, threatening to overwhelm and engulph the obstructions by which its onward

course had been opposed. The storm continued to rage with the greatest violence, and the devoted squares seemed lost in the midst of the tumultuous onset. In vain did the maddening mass chafe and fret away its strength against these impregnable barriers, which, based upon the sacred principles of honor, discipline, and duty, and cemented by the ties of patriotism and the impulse of national glory, stood proudly unmoved and inaccessible. Disorder and confusion, produced by the commingling of corps, and by the scattering fire from the faces of the chequered squares, gradually led to the retreat of parties of horsemen across the ridge; these were followed by broken squadrons, and, at length, the retrograde movement became general. Then the allied dragoons, who had been judiciously kept in readiness to act at the favorable moment, darted forward to complete the disorganization and overthrow of the now receding waves of the French cavalry.

"The allied artillery had barely time to fire a few rounds into the retreating masses, when the enemy's formidable support rapidly advanced to renew the attack; and, as if it had been made aware that the right of the Anglo-allied line was the weakest part, from the want of a sufficient cavalry support, its efforts appeared particularly directed to that point. A body of heavy dragoons was drawn up in a line, and advanced up the ridge, leaving the Hougoumont inclosures immediately on its left. At this moment, however, Grant had most opportunely returned with the 13th light dragoons and 15th hussars from the extreme right; and instantly forming the 13th, which was the leading regiment, in line to the front, moved it up to the crest of the ridge, over which it gallantly charged and routed the French dragoons, driving them about three hundred yards down to the low ground near the north-east angle of the great orchard of Hougoumont. The 15th hussars were also formed to the front on the left of the 13th light dragoons, and charged a mass of cuirassiers, which was driven back a like distance, upon large bodies of cavalry. As these were observed commencing offensive operations, both in front and on the flank, the two regiments, first the 13th, and then the 15th, were compelled to retreat to the main position, and take post in rear of the squares; but this they did with so much order and regularity, that their presence and example imparted new life and confidence to the young Brunswickers, whose steadiness on the right of the line, had been severely tested in the course of the grand cavalry attack. Notwithstanding these reverses, and the decided failure of their former attempts, the French horsemen most gallantly and resolutely renewed their advance, and again plunged in masses, amidst the allied squares. Failing in their direct attack, they rode through the intervals between the squares in all directions, exhibiting extraordinary coolness and intrepidity. Some of the most daring approached close up to the ranks, to draw forth the fire from a square, and thus secure a better chance of success for the squadron prepared to seize the advantage and to charge. Small parties of desperate fellows would endeavor to force an opening at some weak point, by cutting aside the bayonets and firing at the defenders with their pistols; but the squares were proof against every assault and every stratagem. More cavalry crossed over the summit of the ridge; and the greater part of the interior slope occupied by the allied right wing seemed covered with horsemen

of all kinds,—cuirassiers, lancers, carabiniers, chasseurs, dragoons, and horse-grenadiers. The French, enraged at their want of success, brandishing their swords, and exciting one another by shouts of "*Vive l'Empereur!*" reiterated their attacks, with redoubled but fruitless vigor. Like the majestic oaks of the forest, which are poetically said to strike their roots deeper and more tenaciously into the earth, as the fury of the storm increases, so stood the Anglo-allied squares, grand in the imposing attitude of their strength, and bidding defiance to the tempestuous elements by which they were assailed on every side. At length the attack evinced symptoms of exhaustion; the charges became less frequent and less vigorous; disorder and confusion were rapidly augmenting; the spirit of enthusiasm and the confidence of superiority were quickly yielding to the feeling of despondency, and the sense of hopelessness. The Anglo-allied cavalry again advanced, and once more swept the mingled host, comprising every description of mounted troops, from off the ground on which they had so fruitlessly frittered away their strength.

From the United Service Magazine.

#### NARRATIVE OF THE DESTRUCTION OF AN ARMED CONVOY IN THE BAY OF ROSAS.

IN the latter part of the month of October, 1809, a squadron consisting of three line-of-battle ships—*Le Robuste*, of 80 guns, Rear-Admiral Boudin; *Le Lion*, 74, and *Le Borée*, 74, and two frigates, with a numerous armed convoy of store-ships and smaller vessels, were despatched from Toulon for the relief of the French garrison of Barcelona, at this time much distressed for want of necessary supplies. The British fleet was probably supposed by the enemy to be in Port Mahon, its customary harbor station; a look-out frigate or frigates being constantly stationed off Cape Sicie, to watch and report the movement of the Gallic fleet. Nothing was to be seen of our fleet from the signal stations on the French line of coast, and getting out of Toulon, probably in the night, and thus eluding the recognition of the British look-out ships, the above-mentioned squadron and convoy, deeming the coast to be clear, proceeded with imagined security to the westward. In this conclusion they were, however, destined to be deceived, and on arriving off Cape St. Sebastian, on the Spanish coast, with a fair wind to prosecute their onward course, they discovered, to their no very pleasant surprise, to leeward and ahead of them, the fleet of Lord Collingwood, who having received some intimation of an intended movement of the enemy to relieve Barcelona, had here taken up his cruising ground. They of course immediately hauled their wind, in the endeavor to escape, and were chased to windward by the fast-sailing line-of-battle ships of the British into the Bay of Cette, or, as it is more usually denominated, Gulf of Lyons; and so well were they followed, that two of their line-of-battle ships—*Le Robuste* and *Le Lion*—were finally driven on shore in the bottom of the bay, and burnt by their crews to prevent capture. The *Borée* and a frigate, fired on by the British line-of-battle ship *Tigre*, succeeded in gaining the port of Cette, but appeared to have grounded in the attempt to enter it. The convoy had dispersed. Several of them were captured by the British frigate *Pomone*, which being to wind-

ward, had been the first to desecy and give notice of the enemy steering down. Of the scattered remnant, eleven, including one large frigate-built store-ship, *La Lemproie*, armed with sixteen eight-pounders, and manned with 116 men, and three other national vessels—*La Victoire*, *Le Grandeur*, and *La Normande*, of from 10 to 14 guns—under favor of thick weather, found their way into the Spanish port of Rosas.

Ere these occurrences had fallen out, the Apollo frigate had been detached from the fleet on a cruise in the bay of Cette, when it happened that, while yet in total ignorance of the movements of the enemy, at about eleven in the forenoon, of a very hazy day, with a moderate breeze, a ship of the line was announced from the mast-head to be in sight, and in quick succession another and another. The number seen, all of the line, soon amounted to seven. They were standing in-shore, but one of the sternmost tacked and stood towards us, with signals flying, which the prevailing haze hindered us from making out, although well within signal distance. We had left the fleet cruising off Cape St. Sebastian, and had not the remotest suspicion that a strong force of the enemy had passed us in the bay, or that anything could have happened to place the whole or any part of our own fleet in the circumstances of position and locality in which we now encountered the ships in sight; and we therefore entertained no doubt as to their being part of the enemy's fleet, and that probably the haze alone prevented our seeing a larger number, or the whole of their ships. With this impression we made all sail from them to join the fleet off Cape St. Sebastian, with the intelligence we deemed in our possession respecting the enemy. The ship with the signals flying continued for some time to stand towards us, but finding the experiment useless, she again tacked to rejoia her companions. It need scarcely be remarked that we had been led to a conclusion the reverse of the true one—that the ships we had seen were the chasing British, desirous, as we were one of the fastest vessels of the Mediterranean fleet, of our assistance in arresting the progress of the flying French, then in sight of them, and whom they were pursuing inshore. Such are the mischances in war arising from slight incidents. We thus unconsciously proceeded on our way from the scene of action, and reached the fleet about ten o'clock at night, making, as we ran down to them, the night signals announcing the enemy, and causing them to clear for action. On communicating with the Admiral, the mystery was solved, and in another two days Rear-Admiral Martin, with the chasing squadron, returned to the fleet, with the news of the great, although partial, success of their enterprise, in the destruction of the French Rear-Admiral's ship and another of the line, and the varied dispersion of the rest, as above related.

So important a part of the convoy as had succeeded in getting into Rosas, and which doubtless contained a very large portion of the supplies destined for Barcelona, was not to be neglected. Accordingly, the signal was made for the *Tigre*, 80, *Cumberland*, 74, *Apollo*, 38, *Volontaire*, 38, *Topaze*, 36, and *Philomel*, Scout, and Tuscan brigs, to close round the Admiral, and these vessels being placed under the orders of Capt. Hallowell, of the *Tigre*, made sail from the fleet, at the close of the day of the 30th October, to effect with all practicable promptitude the destruction of this remaining portion of the enemy. On getting inshore, however,



on the succeeding day, the state of the weather,—light airs with some swell,—would have prevented the ships from acting, had this been intended; they were, therefore, anchored in the bay, within sight of the enemy, and about five miles from the port of Rosas, and it was determined that the attack should be made in the night of the 31st, by the boats of the squadron, the squadron itself, with the exception of the brigs,—which were ordered to proceed inshore, to afford any required aid,—remaining at anchor in the position it had taken.

The night was moonless, starless, calm, as we marshalled the boats of the squadron in two compact lines abreast, and on the larboard side of H.M.S. Tigre. There is something inexpressibly grand in the aspect of a large man-of-war when seen at anchor on an open coast in such a night, and on such an occasion. Vast yet compact in her bearing, she lies like a giant on his quiet couch, in the might of silent power, brooding over some fearful deed. The boats completely armed and equipped, and furnished with tar-barrel staves, tarred junk, and other similarly-prepared combustibles for setting fire to the vessels of the enemy, were formed, as stated, into two divisions, each boat of each division having its painter, or head-rope, made fast to the stern of its next ahead. The first division, destined to attack the largest vessel, a frigate-built ship of 850 tons, was led by the boats of the Tigre; the second, destined to attack the remaining and smaller vessels, ten in number, was led by the boats of the Cumberland. The boats of the Apollo, being next in seniority to those of the Cumberland in this second line, followed next in its order. The scene of this armament, marshalled under the veil of night abreast of the noble ship, was solemn and impressive. Among the gallant spirits who formed the crews,—as usual in such cases, all volunteers,—some were certain to return no more to the noble vessels which constituted their ocean-homes; more would return scathed and wounded from the conflict. But, in the breast of the man-of-war's man, enthusiasm on the prospect of battle is ever found to be the absorbing sentiment. The incidents of strife and struggle, common to the element he contends with, doubtless induce the habit, and with it the delight and gratification, of surmounting danger. He thus imbibes a kind of salt-water instinct in favor of extremes, often exhibited both in peril and in mirth, and courts them with an avidity unknown to a tamer nature or a less venturesome existence. He is, moreover, at intervals subjected to a monotony which he longs to vary. Uniformity to him is dullness, from which his spirit rebounds, and loves to break in upon by novelty and incident, either fanciful or stern,—he glories in the grotesque or the fearful, the frolic or the fight.\* His hilarity, when once fairly let loose, beggars all other in its extravagant intensity,—his appetite for the conflict is no less engrossing and complete. The character of the man-of-war's man is thus, by habit, allied to the romantic; and it may, perhaps, be further observed, with reference to the present narrative, that there is a certain peculiar and chivalrous character attached to boat expeditions, which, in accordance with the tendency above mentioned, may be considered in

the light of an additional stimulus; volunteers being ever readily found to engage in the boldest and most desperate enterprises of this description.

Final instructions were now received, and the divisions slowly proceeded on their way inshore in the Bay of Rosas, and in the direction of the port of Rosas, which may be described as a small bay within the larger one, and on the eastern side of the latter. A death-like calm now reigned over the expanse of water, the dense darkness scarcely permitted vision at a distance of more than a few boats' lengths, and a solemn stillness, unbroken save by the distant murmurs of the slow-heaving swell, as it reached and split upon the small bays and inlets of the coast, and by the hushed and feebly-heard measured stroke of the muffled oar, noiselessly dipping in the passive element, combined to establish a settled and universal repose, and to call up a sentiment of peaceful meditation wholly opposed to our sanguinary errand. Thus silently and slowly the boats plied on in line abreast, that is, in two parallel lines, until, from the length of time which had passed without arriving at our destination, we thought we must have missed the harbor, and fallen upon some other part of the coast in the bay. During this interval we had of necessity conversed but little, and in under-tones;—many, and doubtless very various, were the themes of reflection indulged in, such as a similar experience can alone fully convey; but suspense now began to wield her painful sceptre over our cogitations. Should we find the enemy before daylight, and, if not, should we attack them under this disadvantage, or relinquish for another twenty-four hours the enterprise? To the latter alternative there were strong objections. The enemy might, under the apprehension of attack, unload a large part of their stores, which were destined, as we have stated, to relieve the French garrison of Barcelona.

Severe disappointment is at any time a painful sentiment, but in few instances is it more mortifying than in those connected with the baffled projects of war. Self-importance, as well as expectation, falls as from a height,—we feel robbed of the opportunity of a display of our patriotism and self-devotion, and sink on a sudden from the pinnacle of high pretension, and it may be of high feeling, to the level of ordinary thought. In a scene wherein the lowest justly deems himself important,—in which the most ordinary casket may disclose the fairest gem,—we have looked for some distinction, and are foiled by the hand of disappointment.

In this state of things we hove to, and a jolly-boat was despatched ahead to grope inshore, and having endeavored to mark the object of our search, return with the news of success or failure. After some considerable interval the messenger returned, and reported that we were not far distant from the enemy, but that he feared that he had himself been discovered by the guard-boat of the latter. We rowed on—our course had been sure though slow—and now lofty spars were seen looming on the curtain of the sky, ere the hulls were visible. At last we were on them. "D'ou venez vous!" resounded through the port. The business was in hand. In the dead silence of night three deafening hurrahs now burst from the boats, which were echoed back with an awful depth and solemnity, and from a great distance from among the lofty hills which encompass the bay, and which recede from the shore far into the interior of the country.

\* It is recorded by Dr. Lind, in his work on the diseases of seamen, that the Mediterranean fleet became sickly, but that all vestige of this sickness suddenly disappeared under the excitement occasioned by the news that the enemy were at sea.

The British *hurrah* is a trumpet-tongued sound. When really associated with the grand in action, and not the mere mock thunder of small doings, few things partake more of the sublime than this shout of human defiance from the voice of a multitude. On the present occasion it arose with appalling effect from the robust lungs of the sons of ocean, amid a serenity so deep, so profound, that nature, sueing for repose, seemed to recoil at the shock—the thick darkness itself seemed to be cleft and shaken by the terrific shout. The effect was electric, and gave the enemy fair warning of the nature of the impending fray. La Lemproie now fired her broadside, the shot from which passed over the boats. She was shortly seconded by a fire opened from all the other vessels, from the citadel and Fort Trinidad, and by volleys of musketry from troops assembled on the beach. The bottom of the harbor, at this juncture, was lighted up all around by the rapidly succeeding flashes from the ships and the shore, and judging merely by the briskness and determination of the opening fire of the enemy, the fate of the attacking party would have appeared already pronounced. The first division of boats, in conformity with its destination, had now attacked La Lemproie, and the fire of small arms from assailants and assailed was seen playing vividly up and down her sides as the boats closed on her. In less than ten minutes she was boarded and carried, and soon after the reddening hue of her port-holes showed that she was on fire, and that the eager element was hastening from the centre to each extremity of her hull. In effecting the capture of this large vessel the fighting was severe. On the right of La Lemproie, as viewed from the shore, and nearer the citadel, the attack had also been begun. Several boats had rowed alongside and astern of a brig near the citadel, which made a spirited resistance. Great was now the din in this quarter, yet, amid the general noise of the surrounding scene, these partial sounds appeared quelled and subdued. When the attack on this vessel had already commenced, two or three boats came down upon her, firing musketry, to the manifest peril of friend as well as foe. They were of course unaware of the position of the boats that had preceded them. They were hailed to desist from firing, and soon joined their comrades. Between this brig and La Lemproie lay La Normande, mounting ten four-pounders, and manned with about fifty men. This vessel kept up an animated fire from guns and small arms, and to her, after a short interval, rowed the launch of the Apollo; but ere this was effected, in giving the citadel a return shot from her thirty-two-pounder carronade, our box of combustible tubes (used for priming by insertion in the touch-hole of the gun) was accidentally fired, and the tubes exploding, burnt and skipped about so fiercely as fairly to drive us out of the stern sheets of the boat, and endanger the explosion of our portable magazine, which would have blown us to atoms. We had to reload the carronade, and while thus occupied were saluted specifically by several shot from the broadside of La Normande, who was evidently observing our motions, and on whom, as just stated, we had determined to direct our efforts. On closely nearing her we found that she had a boarding-netting fixed which it was difficult to penetrate, and observed an individual from one boat, after fruitlessly endeavoring to cut through it, redescend to his boat. We now rowed to a position just abaft her larboard fore chains, and

while thus placed, immediately under her gun, muzzles, she discharged over us part of her broadside, which, low as she was, could not however be sufficiently depressed. An exchange from small arms now took place through her ports, and we finally brought our thirty-two-pounder to bear in an obliquely raking direction, and discharged it with round and grape, the muzzle almost in contact with her side. This fatal discharge swept her deck, and a shout was heard on board her, whether of surrender we knew not, but we immediately boarded on the bow. By this discharge the captain of La Normande lost his hand, and on boarding her the crew made no further resistance, but retired below as we advanced along the deck. The dead and wounded were lying about; one of the former was stretched on his belly across the breech of a gun at one of the ports where we had laid her aboard. The wounded were assisted below. Our boat had been the first to succeed in boarding this vessel, which had kept up a vigorous and determined resistance, firing on the previously captured vessels. Being now aided by other boats, we resolved to tow out the capture, and accordingly commenced this tedious operation under a galling fire of round and grape from two heavy guns of the citadel, which were discharged alternately at us and at some other boats engaged in towing out the brig above alluded to, which had also been captured. This brig had been perceived by us to be fast by a rope from her masthead to the shore, and we had hailed the captors to acquaint them with this circumstance, as we observed them towing in vain, and in ignorance of it.

Four of the captured vessels were about this period being towed out, and the harbor was now, in so dark a night, fearfully gleaming with the conflagration of the remaining seven. La Lemproie was blazing fore and aft, and from the main-deck to each masthead, while the flames ran along her yards to the extremity of each yard-arm; the conflagration, from the calm that reigned, rising perpendicularly, and presenting a regular and symmetrical outline. Sheets of vivid light from the burning vessel were thrown across the dark surface of the water, which, smooth as a polished mirror, reflected faithfully, when thus illumined, the play of the flames, and figures of boats and men, plying across the scene, were at intervals, by a stream of light, thrown out in strong and gigantic relief over the gleaming tide,—the men appearing the demons of the spectacle. The flaming masts of La Lemproie at last fell in succession over the side, her fore-yard having previously fallen square, and with an almost graceful descent, as if it had been lowered. She finally blew up with an explosion, that in one vast sheet of reddish light, accompanied by a loud but hollow and sepulchral shock, grasped the entire breadth of the harbor and was distinctly observed by the main body of the fleet at a distance of twenty miles or more, in the offing.\* Vast fragments of her timbers and scantling were driven upward with amazing force into the dark sky, in the condition of burning brands, which at last hovered and lingered in their aerial elevation like winged and animated things, until they again, at first slowly, and, as it were, reluctantly, descended to quench themselves in the liquid element beneath. The other six vessels also blew up in succession.

\* This vessel was reported to have had on board 400 barrels of gunpowder.

The illumination caused by the burning vessel, had latterly enabled the enemy distinctly to mark our movements, and direct their fire with considerable precision; and the boats were in turn so well covered with grape, that the oar blades were cut by the shot.

We gave way heartily at the oars. At last a light air sprang up off shore, which materially helped us, and by the aid of which, had it occurred a little sooner, the whole of the captured vessels might have been brought off. Trinity Castle, celebrated for its defence by Lord Cochrane, fired at us the last in our retreat, and struck the brig before-mentioned; but these distant salutes were felt by us in the light of parting compliments, which we scarcely cared to decline. Our object had been attained, and we were now close to the brigs of our squadron, which we before observed, had been stationed inshore to cover our retreat, and afford us any necessary assistance.

The morning had dawned, dim, gray, and serene, and with little of the cheerful presence of the sun, but mild and temperate, and clear enough to see all around with distinctness. The port which on the previous evening had worn the inspiring aspect of eleven armed vessels safely moored under the town and forts, now appeared naked, empty, and forlorn, with but one small craft remaining in it. They had been moored close to the shore, and lay cleared for quarters, and prepared for an attack; but our delay in reaching them had probably occasioned them to conclude that it would not take place at so late an hour in the night, or rather at so advanced an hour of morning, as that of between two and three, A. M.

The loss of the British, though sufficiently severe, was much under what might have been expected from the well sustained fire of the enemy at the onset. It consisted of sixteen killed, and fifty-four wounded. Night doubtless contributed mainly to this result. The French loss was believed to be far greater, but, most of the crews, including the wounded, having been sent ashore in their captured boats, could not well be ascertained.

From the Spectator.

#### ILLUSTRATED WORKS.

*The Wild Sports of Southern Africa*; being the Narrative of a Hunting Expedition from the Cape of Good Hope, through the territories of the Chief Moselekatse, to the Tropic of Capricorn. By Captain WILLIAM CORNWALLIS HARRIS, of the H. E. I. Company's Engineers on the Bombay Establishment. Fourth edition.

THIS handsome volume, with its numerous colored plates of wild animals, Hottentots, and the scenes and incidents of the author's adventures in the Zooloo country, presents a great contrast to the homely aspect of the original edition printed in Bombay, which we were the first, we believe, to bring before the reading public in England, in 1839. In this edition it has the outward attractions of an annual, while it possesses far more of inherent interest than those picture-books. The scanty costume of the ebony beauties of the kraal may disqualify it from figuring on the drawing-room-table; but the sportsman and naturalist will appreciate its striking delineations of the Zooloo chiefs, and the droves of strange beasts that people the hunting-grounds beyond Port Natal. The sale of three editions of the book proves the popularity of Cap-

tain (now Major Sir William) Harris' style and the exciting character of his lively narrative, for the amount of scientific information contained in this volume is small.

More full and scientific descriptions of the various creatures Sir William Harris met with, and larger and more elaborate delineations of them, are, however, to be found in a magnificent work that he has just completed, entitled *Portraits of the Game and Wild Animals of Southern Africa*. This folio volume, too, possesses pictorial attractions of no common kind, and exhibits the animals in their haunts in the desert, as sketched by the enterprising traveller on the spot. The completion of this costly undertaking has been retarded by the mismanagement of the party to whom the conduct of the work had been intrusted during the author's sojourn in Abyssinia; and since his return "the law's delay" has intervened to prevent its appearance. All obstacles have at length been overcome, and this superb supplement to the *Wild Sports of South Africa* is now before the public; but nothing short of a large sale can repay the heavy cost of its production.

*The Alphabet of Quadrupeds*, partly selected from the works of Old Masters, and partly drawn from Nature. (The Home Treasury.)

THIS pretty picture-book of beasts is designed to give the young readers a taste for art, and some acquaintance with the style of the Dutch painters, whose etchings of cattle and wild animals are copied in the prints. *The Alphabet of Quadrupeds* would have been more intelligible to the infant capacity had the pictures been as simple and distinct as the descriptions; and it is no disparagement to the old masters to say that there are moderns who would have sketched them with as much cleverness and greater accuracy. The etchings of Fraser Redgrave are as artistic as those of the Dutchmen, and the form and character of the animals more clearly delineated. The principal object of Mr. Redgrave was to exhibit the creatures themselves; that of the olden painters was to turn them to picturesque account; so that the talent of the Dutch masters militates against their success in impressing the minds of children. To appreciate their etching, the spectator should keep art in view rather than nature.

To solve our doubts, we impanelled a jury of juveniles; and this is a specimen of their judgment. Rembrandt's lion has a man's face; Albert Durer's rabbits are all ears; Teniers' monkeys are made to look like men; Karl Du Jardin's donkey is like a horse, and his pigs look dead; Adrian Vandevelde's sheep was mistaken for a cow; the dogs of Dirk Stoop and Le Ducq were declared to be too big; the "unicorn" was a puzzle; and Paul Potter's bull proved the only satisfactory representation. Mr. Redgrave was the favorite. We suspect the urchins are right.

*The Monastic Ruins of Yorkshire*, illustrated by a series of general Views, Plans, Sections, and Details, from Drawings made expressly for this work, by William Richardson, Architect. With an Introduction, and Historical and Descriptive Notices of each Ruin, by the Reverend Edward Churton, M. A. Lithographed by George Hawkins. Part II.

*The Zoology of the Voyage of H. M. S. Suiphur*. No. VI. Mollusca, Part I. By R. B. Hinds, Esq.



## THE MINES IN CORNWALL.

*Transactions of the Royal Geological Society of Cornwall.* Vol. V.

This volume is devoted to a consideration of several important matters connected with the mining operations of Cornwall, which are, in many respects, objects of interest.

The external features of these mining districts are peculiar; for although occasionally we see the machinery and the rubbish of a mine in the centre of a fertile spot, sterility in general marks the surface which covers mineral treasures. Moors, enlivened only by the furze and heath, or granite hills bare of vegetation, are most commonly the scenes of mining operations. The landscape, as nature left it, is one of desolation, but a productive mine is discovered, and the scene is changed. White-washed cottages thickly cover the soil—the transforming effects of industry; and vegetables for use, and flowers for ornament, grow in these cottage gardens. In the centre of this scene of life, the tall house, and its taller chimney, of the steam-engine, are seen employed in pumping the water from the depths of the earth—and near it another engine drawing the ores from the shafts, or perhaps the primitive horse whim, with the heavy rope twining around its wooden cage. On a near approach, life and bustle are immediately apparent. At the mouth of the *shaft*, men are waiting for the arrival of the *kibble* to the surface; the ore is carried off immediately to the *dressing-floors*, where young women and boys are employed in breaking up the large masses, whilst the task of selecting the pieces of ore from the matrix in which it is found, is performed by children. Thus, in the Cornish mines, are 30,000 persons employed, averaging 18,472 men, 5,764 women, and 5,764 children.

The Cornish miner is a fine native character. He is naturally brave and often reckless. He delights in overcoming difficulties—his patience and perseverance is of the most marked kind, and in many parts of the country, he has constructed works, which testify to his hardihood and determination. At Botallack Mine, which is worked for a considerable distance under the Atlantic Ocean, the miners were tempted to follow the ore upwards to the sea, but the openings made were small, and the rock being extremely hard, a covering of wood and some cement sufficed to exclude the water and protect the workmen from the consequences of their rashness.

Mr. Henwood, to whose papers the above volume is entirely devoted, thus describes a visit made by him and one of the mine captains, to a mine, in the same district with Botallack, and similarly situated:—

"I was once, however, underground in Wheal Cock during a storm. At the extremity of the *level* seaward, some eighty or one hundred fathoms from the shore, little could be heard of its effects, except at intervals, when the reflux of some unusually large wave projected a pebble outward, bounding and rolling over the rocky bottom. But, when standing beneath the base of the cliff, and in that part of the mine where but nine feet of rock stood between us and the ocean, the heavy roll of the large boulders, the ceaseless grinding of the pebbles, the fierce thundering of the billows, with the crackling and boiling as they rebounded, placed a tempest, in its most appalling form, too vividly before me to be ever forgotten. More than once doubting the protection of our rocky shield, we retreated in affright, and it was only after repeated trials that we had confidence to pursue our investigations. Almost all the mines in the parish of St. Just, near the Land's End, are similarly situated, and the positions of several of the steam-engines are highly picturesque: perched on the verge, and even on the ledge of a tremendous precipice, they seem at the mercy of every storm, and to the beholder from beneath, they almost appear suspended in the air, and tottering to their fall."

In one part of Botallack Mine, the laborers have to descend to the adit, or entrance to the mine, by ladders hung against the face of the cliff.

These laborers have, on some occasions, to endure extreme fatigue. In the deep copper mines of Gwennap, many men have to descend upwards of 300 fathoms, or 1800 feet, from the surface by ladders. This descent takes the miner one hour; he has then to labor from six to eight hours in a temperature of from 90° to 100°, breathing the noxious gases evolved from the explosions of the gunpowder used in blasting the rocks, and with a very insufficient supply of oxygen. After severe toil under these distressing circumstances, the already exhausted laborer has to exert the power of every muscle to drag himself from stave to stave upon the ladders, a task which even young men cannot perform in less than an hour and a quarter. In one of the mines of this district, (Tresavean,) by the liberal and praiseworthy exertions of one of the local institutions, a machine has been erected by which the miner passes to and from his labor without fatigue. This machine, by which upwards of one hundred men are enabled to descend, at the same time as the same number are ascending, takes a man to the bottom of this, the deepest mine in Cornwall, in twenty minutes, or brings him from the bottom to the surface in the same time. The good effects of this machine are already evident in the condition of the men; and although the construction of it, and the necessary preparations in the shaft for receiving it, entailed upon the adventurers an outlay of between three and four thousand pounds—the Polytechnic Society of Cornwall subscribing five hundred—the economy of time and strength has been found to be so great, that the adventurers are now deriving actual profit from the machine, which, greatly to the credit of their humanity, was constructed with a purely philanthropic object.

The great mining operations of the West are confined to the search for tin and copper. Mining for tin in Cornwall is of the remotest antiquity—and the singular excavations, called the "Devil's Frying-pan," near the Lizard Point—the "Land's-End Hole," at Tol-peden-Penwith—and the "Pit" in Gwennap, are undoubtedly the works of the ancient Britons. The Scilly Islands, upon which mining operations are not now carried on, appear to have been the Cassiterides, or Tin Islands, of the Romans; and there is every reason to believe that the only wealth which could have tempted Athelstane to these rocks of the Atlantic were their tin mines. Curious remains of old smelting works are frequently discovered in the valleys and sheltered spots. These are of the most primitive character, and it would be impracticable to smelt any metal in them which was more infusible than tin. These places are traditionally called Jews' Houses. This fact, and that of the market-town of Marazion being still known among the country people by the name of Market-Jew, tend to establish the supposition, that the trade for this metal was entirely in the hands of the Jews.

It is only within the last century that copper ore has been sought for; the old Cornish miners, seeking eagerly for tin, threw the copper ores aside, and as they worked away the surface, if they came upon this valuable metal, they abandoned all further search. The hill on which Tresavean copper mine is situated, was worked over for tin, by the grandfather of some of the present proprietors, and abandoned because the copper spoiled the tin. This hill has been excavated most extensively since that time, for the former metal; and it has, for upwards of fifty years, afforded an abundant supply of the most valuable ore, realizing, in our own land, the dreams of the riches of Potosi, and is still unexhausted. It is the centre of a large industrious population; hundreds of families are dependent upon its buried treasures for their daily bread, whilst many owe their affluence to the same source.

The average quantity of ore raised in Cornwall annually, is—

	Tons.	yielding of metal	12,042, value	£
Of copper ore	151,554	"	5,130,	461,700.
Of tin ore ..	7,817	"	"	"
Of iron ore ..	40,000	"	"	"
Of lead ore ..	1,800	"	"	"
Of manganese ore	5,000	{ raised in large quantity }		40,000.
		{ in West Devon, }		

In addition to these minerals, 800 tons of arsenic are annually produced in Cornwall. The various improvements which have been recently introduced in smelting operations, have rendered the separation of silver from the galenas a work of profit. The mundics—sulphurets of iron—are becoming very valuable for their sulphur: and, in various parts of the county zinc, cobalt, antimony, bismuth, and nickel, are obtained. It is to be regretted, that the want of chemical skill on the part of those engaged in smelting operations has occasioned the abandonment, or nearly so, of the zinc ores of Cornwall, although exceedingly abundant; and that we should import immense quantities of that valuable ore, cobalt, from Saxony, whilst it lies in heaps, and is considered valueless in the mines of our own land. If a school of mines had been established in England, these, and many other valuable minerals, would have been long ago profitably worked. We hope that the success which has attended the establishment of the Museum of Economic Geology may lead to its extension, and that before long England may be able to boast of its national establishments, in which mineralogy, metallurgy, and mining are practically taught.

Tin is found in the granite districts, most of those primitive mountain ranges being traversed by tin lodes, or fissures, in which, mixed with quartz and other matters, this metal has been, by some secret operation of Nature, formed in large quantities. These lodes are now extensively worked, but, at the same time, search is made for this metal in the valleys, by what is called *streaming*. It is well known that, under some conditions, the granite is very readily decomposed. In the course of ages, the decomposed faces of the hills have been washed down by the storms, and this debris borne by the rivers, and gradually deposited in the valleys. This deposit is collected and washed—the tin which it contains, being from its greater specific gravity left behind, is thus collected. This *stream* tin is superior to the tin of the lodes—the sulphur and arsenic which contaminate the one not being found in the other. With this stream tin, gold is sometimes found, and at Carnon stream, pieces of native gold of considerable size have been discovered. Copper ore is found both in the granite and in the *killas* (clay slate) rocks. Any observer going over the great mining fields of Cornwall must notice that the productive copper mines are invariably just upon the junction of these two formations, and experience has shown that no very abundant supply of this mineral is to be expected from any district far removed from the line of junction. In the serpentine rocks of the Lizard Point, copper has been discovered, principally in masses, and in most cases in a state of very great purity.

The first paper in this volume is a memoir "*On the Metalliferous Deposits of Cornwall and Devon*." In this, the principal communication made by Mr. Henwood to the Society, he has given the results of his examination of most of the mines in the district, which examination has been the labor of twelve years; consequently a great deal of very valuable matter has been brought together. We have descriptions, tabulated forms, and diagrams in great number; but, from a careful examination of these, and reference to other authorities, we could have wished that the indefatigable author had confined his observations to a narrower sphere. In diffusing his examination over so extensive a district, he has not been enabled to give that close attention to many of the most remarkable phenomena connected with the

formation of mineral lodes or veins, which they deserve. The *slides and heaves*—those ruptures of mineral veins which appear to indicate some great movement of the earth—have been, most of them, noticed, but, in many cases, from the superficial examination which Mr. Henwood has given them, he has come to certainly very incorrect conclusions—and his statements are frequently only in part correct—portions of the lode, which indicate a certain fact, being alone examined; whereas, if the examination had been carefully carried over every discovered part of the mineral deposit, the author's views would, there is no doubt, have been considerably modified. The laws which regulate the formation of mineral lodes, notwithstanding the very extensive observations which have been made, are still involved in obscurity. A certain degree of regularity has been found to prevail in the direction and dip of lodes, and also in those curious intersections which are technically termed *cross courses*. It would appear from the observations and experiments of Mr. Fox and of Mr. Henwood, that the electrical agent was in active operation, effecting the decomposition of masses of ore in some places, from which, by the infiltration of water, the metal is removed, leaving curious caverns, called by the miners *vugs*, whilst it is again deposited in some remote fissure, in new forms, by the influences of the same principle. This subject has been rather extensively investigated by Mr. Henwood, but we must refer those who desire more information on this curious question to the volume itself.

Subterranean temperature has also occupied the author's attention, and he has a memoir on this subject. He has observed that at the same depths the granite rock is always colder than the slate rocks. It is also stated that "at all depths the rocks are warmer than the lodes, and the lodes than the *cross veins*;" this is so contrary to the impressions of all practical miners, and so much at variance with the results obtained by Mr. Fox, Prof. Forbes, and others, that we think there must be some error. Mr. Henwood states that "from the surface to 150 fathoms deep, the rise of temperature, for equal increments of depth, seems to be in a diminishing ratio; a fact previously known. But further observations disclose the curious, and it would seem anomalous circumstance, that at more than 150 fathoms deep the progression again becomes more rapid. Now Mr. R. W. Fox's observations, published in the Transactions of the British Association for 1840, give in round numbers,

A temperature of 69° at 59 fms. below the surface.  
" 70° at 132 "  
" and 80° at 239 "

Being an increase of  
10° at 59 fms. deep, or 1° in 35·4 feet.  
of 10° more at 73 fms. deeper, or 1° in 48·8  
And of 10° " 114 fms. still deeper, or 1° in 64·2

The discrepancy between these results is very great; we at first were inclined to account for it from Mr. Henwood's having confined his observations entirely to the temperature of the water issuing from the rocks, which might accordingly as it percolated from above, or rose from a greater depth than the place from which it issued, represent the temperature of a situation far different. Mr. Fox's results were obtained from observations on thermometers placed in holes bored in the rocks; the temperature of the rubbish in the galleries of the mine and of the water being at the same time carefully ascertained. However, on going over the tabular results which Mr. Henwood has given, it does not appear to us that his position is borne out by them, if we take a fair mean of the whole, which is the only correct mode of arriving at the truth.

To all persons interested in the investigation of the great phenomena observable in the mineral kingdom, this volume will be of much value; whilst to the general reader it presents many points of interest.—*Athenæum*.

From Chambers' Journal.

## THE DISINTERRED.

Why from its sacred home  
 Bear the tired dust?  
 Would ye, too, bid the winged spirit come  
 Back to a broken trust?

THE grave, the last resting-place of our "frail humanity," has been invested, by the common consent of mankind, with so much of sanctity, that its wanton desecration is always looked upon with horror; and even those disinterments which are sometimes, as in cases of suspected murder, necessary for the ends of justice, are generally conducted with as little publicity as possible. Exceptions, however, there are to this, as to most other prejudices and customs of society; and there are on record some disinterments so remarkable as regards the feelings that occasioned them, as to have become matters not only of history, but also of poetry, and that too of the highest order. Many have thrown the halo of poetic coloring round the romantic story of Inez de Castro, the unhappy lady of Portugal, who, being privately married to Don Pedro, the heir of the kingdom, was assassinated by the order of her royal father-in-law, as not being noble enough to share the power of his son. This occurred in 1355, and Don Pedro submitted in silence to the blow that thus ruined his happiness. For thirteen years, during the lifetime of his father, he took no measure of revenge, only brooding on his loss; but no sooner did the death of the king render his own power supreme, than he put to a cruel death the assassins of his wife, and issued orders for a splendid coronation in the cathedral of Santa Clara in Coimbra. There, at noonday, in the presence of the assembled chivalry and beauty of the land, all that remained of Inez de Castro, "his beautiful, his bride," was clad in purple and cloth of gold; a royal crown was placed on those hollow temples once so fair to look upon; she was raised high on a chair of state, and Pedro stood beside her, to see that none of the shuddering nobles failed to do homage by touching that fleshless hand. Time, place, and circumstance, all conspired to make the spectacle one of splendid horror. Never before nor since was the great lesson of the frailty of human life and the nothingness of earthly grandeur so sternly taught; for even he who had summoned this vast assemblage, that he might thus vindicate the fame of Inez and his own fidelity to her, was only mocked by the pageantry of the scene. It restored her to him, indeed, but not in the living and breathing loveliness which had first won his affections. He had avenged her death; he had made those haughty nobles, who feared degradation if she came to be queen over them, humble themselves before her dust. Still, the heart yearned for more; but all that remained for him to do was to restore his queen to the loneliness of the sheltering grave. She was re-interred with great state in the church of Alcobaça; and her tomb, rich in elaborate sculpture, and containing at a later period the remains of Don Pedro also, was long a shrine for the visits of pious or curious travellers. It was finally desecrated and destroyed by the soldiery during the Peninsular war.

The histories of Spain and Portugal, almost more than those of any other country, mingle with their records of campaigns, treaties, and insurrections, those traits of individual character and feeling which are of the deepest interest not only to the general reader, but to the student of human

nature. Beneath a proud and cold exterior, the Spaniard concealed a passionate tenderness and jealousy in love, and a lofty courage and honorable faith in arms, which made the national character, some three centuries ago, the *beau idéal* of European chivalry. Never were sovereigns more deservedly celebrated than Ferdinand and Isabella, who, by their marriage, and the subsequent expulsion of the Moors, consolidated the Spanish monarchy, and who were, moreover, the friends and patrons of Columbus; yet, fortunate as they were in all their undertakings, they could not escape a painful kind of misfortune—they were unhappy in their children. Their eldest son Juan, gave promise of much goodness, but he died just as he attained to manhood; their eldest daughter Isabella, beautiful and virtuous, died soon after her marriage to the prince of Portugal; their youngest daughter Catherine, married to our Henry VIII., deserved, for her many virtues, to have met more happiness than fell to her lot with her tyrant husband. Joanna, their second daughter, married to Philip of Austria, surnamed the Handsome, was unlike all her family; she neither inherited the talents and virtues of her illustrious mother, nor the worldly wisdom of her sagacious father; and she had no attraction of person or manner to compensate the deficiency. She was singularly wayward and imbecile, and her affections, for want of due regulation, annoyed the husband on whom they were indiscreetly and fitfully lavished. Philip was not only young and handsome, but gay and fond of pleasure; he disliked the haughty formality of the Castilian court, and treated the royal circle, including his wife, with an insolent indifference that offended the pride of the Spanish character, and awoke, in the bosom of Joanna, a jealousy that alternated with love and bigotry in directing her conduct. During the life of Isabella, the quarrels of the young couple, though frequent and violent, ended in reconciliations; for the queen, who was a true wife, a wise and affectionate parent, a kind mistress, and a judicious and warm friend, could bend all who came within her influence to her own will; but when death deprived Joanna of this best monitor, her capricious conduct entirely estranged the affections of Philip. As she was the next in succession to her mother, she was immediately declared sovereign of Castile; and after some delay, and in despite of opposition from her father, Philip was joined with her, and he assumed his new authority with an eager enjoyment that contrasted strongly with the morbid indifference of Joanna. Scarcely, however, was Philip seated on his so-much-coveted throne, scarcely had he taken his first draught of the intoxicating cup that seemed filled with happiness, when he was seized by fever; and in the very prime of manhood, just as he had attained the summit of power, after a few days of severe suffering, he died. Then came that "late remorse of love," which made the really injured Joanna forget all his unkindness and neglect; the shock was so severe and unexpected, that she could not at first be brought to comprehend that he was really dead; but when that was beyond all doubt, her mind, which had been long harassed by the conflict between love, jealousy, and a blind and bigoted religious belief, became absorbed with the one idea that he might be restored to life. Her confessor had told her of some monkish legend, which related, that even after fourteen years, by faith and prayer, a dead king had been restored to life, and she resolved to watch and



pray, that a similar miracle might be wrought on her behalf. Full of this hope, she looked, without shedding a tear, on the remains of her idolized husband; she suffered the royal obsequies to be performed with all the usual pomp; but, as soon as they were concluded, and the actors in the ceremony were all dismissed, she caused the body to be exhumed, and taken back to her own apartments. Yet even here, in her lonely vigil over the confined clay, she betrayed the same jealousy that had mingled with her love for him in his lifetime, and she suffered no female to approach the apartment. We, who now sit in judgment on her conduct, know that thus to feel and act was madness; but with the charity that is

"so holy in the heart,  
And gentle on the tongue,"

let us draw a veil over her infirmities, and pity her sorrows. Though quite incapable of exercising the functions of royalty, she would not relinquish her right to the sovereign power of Castile: she still watched and waited for the return of Philip, withholding for him the right to govern which had descended to their son, the well-known Emperor Charles V. This prince, though manifesting towards the close of life something of the superstitious melancholy of his mother's temperament, seems to have inherited the characteristics of his maternal ancestors, Ferdinand and Isabella; as if talent, like a vein of precious metal, could be lost for a time only to reappear, in another generation, with greater richness, brilliancy, and depth.

Great as are the diversities of human character, it is scarcely possible to find two individuals whose sex and station in life being the same, present so great a contrast to each other as Joanna of Castile, and Catherine II. of Russia. Both had sensible and highly-gifted mothers, who diligently superintended their education, to fit them for the sovereign stations they were expected to fill. Joanna's natural incapacity defeated her mother's care, but Catherine had superior talents, and profited by the instructions bestowed upon her. They were both married early; and while Joanna's misery arose out of her exceeding affection for the gay, careless, handsome Philip, Catherine's career of crime commenced in her aversion to the imbecile, ill-favored, brutal Peter; yet, offensive as were his habits, they form no excuse for the guilty ambition which led her to connive at, if she did not contrive, his murder. Scarcely could his body have been cold, when his murderers proclaimed her his successor; he was interred, after a short public exposure of his corpse to the gaze of the public, in a convent, and Catherine at once assumed all the powers of the imperial autocrat. For thirty-five years she retained this vast authority in her own hands, not even suffering her son Paul to enjoy any share of it, much less to ascend that throne, to which, at the completion of his minority, he had an undoubted right.

Unlike the weary, solitary widowhood of Joanna, Catherine spent her days in the bustle of the camp and the gaiety of the court, maintaining to the last day of her life her established habits of activity. After completing her seventieth year, she fell into a stupor or swoon, in which she remained thirty-seven hours, and then, uttering a fearful shriek, expired. It has been thought that she would, if her senses had returned after the first seizure, have named some other than her son as her successor, so great an aversion had she always seemed to en-

tain towards him; but he was, as of right, immediately proclaimed czar. One of the first acts of his reign was to order the disinterment of the body of his father; he caused the coffin to be opened in his presence, and shed tears over the remains of his murdered parent. The coffin was then closed, a crown was placed upon it, and it was removed with great pomp to the palace, and thence to the citadel, the royal burying-place. The body of the empress had, in the mean time, been embalmed, and the two coffins were placed side by side. Separated for so many years, husband and wife met again—

"Where none had saluted, and none had replied:"

he from his mouldering rest and companionship with the worm, she from a long course of luxury and unbounded indulgence in vices that every law, social, moral, and divine, discountenances and forbids. One, by the royal mandate, watched over their solemn rest, a man of gigantic stature, with iron nerves; yet did he not tremble as he kept his vigil with the dead! He was more than suspected of being the murderer of Peter; but Paul could not so far outrage his mother's memory as openly to proclaim such a terrible fact; he therefore avenged his father by thus honoring his remains, and making Alexius Orloff, the reputed murderer, watch over and follow them to their tomb.

From Chambers' Journal.

#### SUNDAY IN LONDON.

THE devotion with which business is pursued in London has caused the Sunday to be most unfairly dealt with. The great bulk of the industrious classes find, or affect to find, that they must work from morning till night for six days, and then convince themselves that it is necessary to spend the Sunday entirely in recreation, for which they say they have no other time. It would probably be a new idea to many of them, if they were asked, "Why no other time?" or if it were pointed out that each day ought to have, to some extent, its own period of recreation. But, how far soever they may be in error on this point, the mode in which these classes do generally spend the Sunday is itself a fact in our social system not unworthy of notice. A few light pencillings on the subject may be listened to, where a downright sermon would be disregarded.

The streets of London always present a remarkably quiet and deserted appearance early in the morning, but on this day particularly so. All is still, save now and then when the steps of the distant policeman are heard breaking with their echoes the death-like silence of the streets, or when a party of anglers, principally young clerks and shopmen, pass by, yawning and half wishing that they had not got up quite so early, and carrying across their shoulders formidable instruments intended for the capture of roach and gudgeons, and large full-bellied baskets crammed with bread and meat, equivocal pork pies, and a bottle of beer. Now and then—but, I am happy to say, this has become comparatively a rare sight of late years—some mechanic, we may hope an unmarried one, who had been offering last night the first fruits of his week's wages at the shrine of Bacchus, comes staggering past. He is not sufficiently sober to know where he is going; but as he is not too drunk to walk, and does not make

any disturbance, the policeman takes no notice of him. The early breakfast stalls, that on other days are patronized by artisans on the way to their work, are not to be seen, or are confined to localities in which their custom is derived from those who reside in their immediate vicinity. The coffee-shops remain shut longer than usual, as mechanics, who form their principal frequenters, lie in bed a couple of hours later, as a rest from the toils of the past week, and a preparation for the fatigues of the ensuing day.

At seven o'clock the day may be said to commence. The shrill voice of the water-cress seller is heard—the small transactions of that trade confining it almost entirely to children and those who are too old for anything else. The other cries tolerated on Sunday morning are shrimps, dried haddocks, Yarmouth bloaters, mackerel, and the fruits of the season. It may be well, however, to say that the magnificent but ugly word bloater is applied to mere red herrings, and not to that incomparable dainty which swims in the sea only a few days before it comes on the table, and is only salted sufficiently to make it keep for that interval, and only smoked enough to tinge it with the color of virgin gold. The milk-woman now walks her rounds, clattering her tin cans, and singing out her musical cry. She is a stout, rosy-cheeked, good-humored Welsh or Irish woman, with a joke for the policeman, and for the servant-girl an inquiry after the health of her "young man." She is also the confidant of the whole neighborhood, and gives sage advice to the servant-of-all-work, who, disgusted with some inquiries that had been made after a shoulder of mutton which appeared but once at table, resolves to give that missus of hers warning this very blessed day. The chimneys begin to smoke, and the shops in the poor neighborhoods, that deal in the necessities of life, open one by one. Down the narrow courts, windows are thrown open to let the chimney draw; and in that nearest you, you hear the rattle of cups and saucers, and by and by the screams of a little boy who is undergoing an involuntary ablution. When the younger branches of the family are dressed, they are made to sit in a row on the door-step, so that they may be out of the way, and with strict injunctions not to play, lest they should spoil their dresses. Inside, the mother and elder daughters are deep in the mysteries of stuffing a leg of pork and the manufacture of an apple-pie; and the father, after being knocked about by everybody, and made a complete tool of—having alternately been set to hold the baby, and pare apples, and reach down sugar, and sharpen knives—at length indignantly retires to the street-door, where, with his coat off, and in a very white shirt and ditto trousers, and with the baby in his arms, he smokes his pipe and reads his Sunday paper, borrowed from the public-house, or one of the penny weeklies, purchased "out and out."

About ten o'clock the streets become fuller. Londoners have a strong regard for appearances, and those who perhaps do not visit a church from one year's end to another, are yet unwilling to exhibit their negligence to the public. During the hours of the morning service the streets are comparatively empty; all those who set out on their day's walk before dinner—who, however, form but a limited proportion of the pleasure-seekers—starting about this time. They generally consist of small parties who go down by railway or steamboat to Greenwich, carrying their

dinner with them in a basket, and dining under a chestnut-tree, spending their afternoon in visiting Shooter's Hill, riding on donkeys on Blackheath, or perhaps getting up, along with some other party, a game at kiss-in-the-ring. This is also the time chosen by the young shopkeeper, who, shutting his eyes to the expense, hires a gig for the day, and drives his lady-love to Harrow, Richmond, Tottenham, or some other favored place, where they dine at an ordinary; and after walking about in the neighborhood, return at six to tea, which is served with great dignity by the young lady, whose point of politeness is to thank the waiter separately for every service he performs. There is another class—patriarchal experienced men, knowing of the fact that simple and economical pleasures are often the best—who carry the whole of their family, and a friend or two besides, to Epping Forest, in a taxed cart drawn by a tall bony horse, well known in the neighborhood for the last dozen years, and generally supposed to possess unlimited powers of drawing. When this party has arrived at its destination, a large basket is unpacked, and a cloth spread on the ground, and they all fall upon the viands before them with hearty appetites and merry laughter, as safe from intruders as if they were in a balloon, although the place is within a few miles of London. After dinner a fire is made with dry sticks, and a small kettle of water is put on, which serves the double purpose of preparing the old gentleman's toddy and making tea for the ladies; and in the mean time the young folks stroll about, arm in arm, gathering wild flowers, and the old folks sit down together and prose. Others, with their dinner in a handkerchief, repair to Hampton Court, by means of a pleasure-van holding about two dozen persons, and for the trip there and back pay a shilling. The van is handsomely painted, the horses neatly harnessed, and the awning overhead protects the pleasers from the sun, admitting only the dust. In a very little while they are rumbled and tumbled into companionship. Perfect magazines of fun are these pleasure vans. Many an acquaintance begins in them which is destined to reach its climax at the altar, and only to terminate in the grave. These pleasers look down with a good-humored superiority on mere pedestrians, and many are the jokes and repartees bandied between the two as they pass.

Well, as has been said, it is ten o'clock. The main streets that lead out of town are thronged with pleasure-seekers, and in the poor neighborhoods the shops are open, and doing a great amount of business. Mrs. Smith, having resisted for some time the demands of the children for a pie, to their great glee at length gives in, and hurries out for green rhubarb, gooseberries, currants, and raspberries, or apples, according to the season, though with many misgivings in her mind, when she considers the quantity of sugar that will be necessary to make them palatable. Good managers put off the buying of their Sunday joint to this moment, in the hope that the butcher will sell his meat a halfpenny a pound cheaper rather than keep it till the next day; but they meet with the fate of most very good managers, and are often obliged to put up now with what they would have rejected last night. Little boys, with their jackets off, carry earthen dishes containing shoulders of mutton, with potatoes under them, to the baker's, feeling all the way in a state of nervous trepidation lest they should meet with some strong and unscrupulous

man who might not have such a dainty for his dinner. Behind comes a little girl who is intrusted with the pie, and who, on her return home, gives her mamma an account of what all the neighbors are going to have for dinner. It is astonishing how penetrating girls are, especially if they are the eldest in the family. Boys neither know nor care about anything that is not in some way or other connected with marbles or leap-frog, but we never knew a little girl who did not know the names of all the people in the street, and more of their affairs than could be gleaned from any other source.

The church-bells are now ringing, well-dressed people are walking along with a quiet and serious air, carrying prayer-books in their hands, and making Mrs. Smith wish that she had done all her marketing on Saturday evening, so that she might not have been seen before she had "cleaned" herself. The shops are all shut, and in a quarter of an hour the streets are comparatively empty. The cabmen, despairing of a fare for the next two hours, collect in groups opposite the coach-stand, and regale themselves with the feast of reason and the flow of soul, the public-houses being rigidly closed until one o'clock; while in St. Giles' and Seven Dials, Irishmen dressed in blue-coats with brass buttons, individually lean against posts, or, seated in rows on the curb-stone, smoke in a state of apathy, occasionally addressing some monosyllabic observation to one another, which is answered with a grunt of assent.

It is one o'clock, and Mrs. Smith is dressed, and nursing the baby; and Mr. Smith, having finished his second pipe, and read the paper through, advertisements and all, and having been put into a state of patriotic dissatisfaction by the leading article, is indignant because he cannot think of anything to grumble at except the heat of the weather. The little Smiths are each of them seated on a chair, in order to preserve their muslin frocks and white trousers; but which, however, they are constantly leaving, in order to look if the people have come out of church, keeping their mother actively employed in reseating them. At last, however, the streets begin to fill as if by magic. The clock strikes one, and out the young Smiths rush to the baker's, without stopping for bonnets or hats. If they did not get there before anybody else, who knows that somebody might not make a mistake and take away *their* pie! Such things have happened before, and it is a remarkable fact that the person who makes the exchange has always the best of it. However, on this occasion it is all right. The pork is done well, and is encased in a coating of such delicious crackling; the potatoes are nicely brown, and soaking in fat; and as for the pie, it is the perfection of the baking art. It is a fine sight, too, to see the stout woman handing the dishes over the counter, and receiving the money with an air of cool unconcern, as if a gooseberry pie were an every-day occurrence, and a custard pudding a mere nothing; and it would be a surprising sight, too, to one who did not know that bakers live upon the steam of the good things intrusted in their hands. During the time the dinner has been sent for, Mr. Smith with his own hands has brought a pot of porter from the public-house at the corner, stopping every minute to drink a mouthful lest it should spill. On reaching home, he finds that his wife has laid the cloth with scrupulous neatness, bringing out to advantage the imitation ebony cruet frame that they have had

ever since their marriage, and the best knives and forks which had been a present from mother. The cloth is laid, too, on their best table, a small, round, unsteady, and indeed somewhat dissipated-looking article, made of walnut tree. It is certainly rather a hard squeeze, but the other table will not do for Sunday; and Mrs. Smith takes the youngest boy on her lap, and father one of the little girls, and thus they all manage, somehow or other, to get within reach of the dainties. We will not say anything about the dinner, farther than that it is treated in the style customary with Londoners, who consider it a Christian duty to eat as much as possible on Sunday; and it must be a good dinner too, even if they are upon short commons for the rest of the week to pay for it.

The dinner is over, the things are put away, and everybody is dressed, and anxious to go out. So Mr. Smith goes for the children's "shay" from the back-yard, and with some difficulty lugs it up the narrow steps, looking very red, and feeling very wrathful from his having whitened his best coat against the wall, and received a blow on the shins from the handle of the chaise. However, he cools down when three of the children are inserted in the vehicle, and the party at length set out, three other children walking behind with his wife and the baby, while he himself draws the chaise, wrapped up in the enjoyment of a new clay pipe at least half a yard long, which he had hid away till now over the clock, to be out of the reach of the juveniles. Through the streets they go, Mrs. Smith screaming out every moment to the children to get out of the way of the carriages; and herself, by way of setting a good example, running every now and then under the very heads of the horses, as is the custom of all timid ladies. They cross the New Road, down which crowds of people are making for Regent's Park, to sit down on benches or lie on the grass, or form a circle round one or other of the many lecturers who there hold forth gratuitously; and perhaps after that to make a pilgrimage to Primrose Hill, from the top of which they see the panorama of the mighty city spread before them, with St. Paul's rising high in the midst.

Everything goes on pleasantly enough with our Smiths, who walk through Somers-Town, keeping on the shady side of the way; but it is quite a different affair when they get past Chalk Farm. The road here opens to the hot sun, and clouds of dust come darting down, then across and back again, like a playful kitten doing all the mischief it can out of pure fun. But the worst of it is the steep hill they have now to climb. Mr. Smith tugs and toils away, now stopping to dry the perspiration from his brow, and now giving vent to his feelings by reproaches levelled at his wife. He knew all along what it would be. It always happens so every Sunday; and his pleasure must be spoiled for a whole day, because she would insist on bringing the children. It was too bad—that it was. Now, Mrs. Smith possesses, as she herself affirms, the temper of a *hangel*, but to hear the way John went on would exhaust the patience of Job. Was n't it enough that she was worrit to death by the baby, but he must begin to talk about *her* bringing the children, just as if he didn't propose it himself! But that was the way she was always treated; he was never contented and sociable like other men. Why didn't he take pattern by cousin Mary's? But just as she has reached this point, they arrive at a public house, in which Mr.



Smith proposes that they should rest for a short time, and as his wife is perfectly agreeable, they walk in. After sitting for some little while over a pint, who should they see coming in but young Thompson and his wife, a very respectable couple indeed, he being a first-rate turner, making, it is said, at least two guineas a-week. After expressing their mutual surprise at meeting, they all sit down together, and the two men begin to talk politics, and the ladies domestics. Mrs. Smith gives a complete history of the rise and progress of the hooping-cough with which little Johnny had been lately suffering, with an exposition of her particular mode of treatment, to all of which Mrs. Thompson listens with great interest, and treasures it up in her mind, as she herself has a baby of two or three months old. Having rested for some time, they start in a body, and as there are now two men to draw the chaise, they go on pleasantly enough, and at length, after several stoppages, arrive at the very top of Hampstead Heath.

On the side of a declivity on the heath there are a great number of tables and forms laid out on the grass, on which some washerwomen, who inhabit the cottages close by, provide the social meal for all such as are willing to pay ninepence a-head. To this spot our party repair, and after some discussion with an elderly female with regard to how many heads the young Smiths might be supposed to possess collectively, they sit down and take tea, remarking how very differently the beverage, as well as the bread and butter, tastes in the country. Even tea, however, will not stand more than three or four waterings at the most, and they at length get up and turn their faces homewards.

The heath is now rapidly becoming deserted, the only persons who seem inclined to remain being couples, who walk about slowly in the less frequented parts, and talk together in a low tone, and white gowns that are seen gliding like phantoms among the bushes, each with its Hamlet striving to muster courage to address it. The dusk of the evening is coming on, and the pleasure-seekers again return to the road, and now commences the least agreeable part of the day. From Hampstead to the New Road there is an almost solid line of human beings, some three miles long, enshrined in a cloud of dust. Every person is thirsty, but the public-houses are all full; and even if they were not, there are very few who have not spent their money at Hampstead. Of that mass of human beings—indeed of the whole population of London, whether seen in church or in the streets on this day—it is worthy of remark, that there is not one who is not well and comfortably dressed. In this respect we differ from most continental cities. The same feeling of pride that makes the Londoner fare well on Sunday at the expense of the rest of the week, causes him to dress well, and if he cannot do so, he remains a prisoner in his house all day.

Down the hill come the multitude, their feet sore with walking, their heads aching with the heat of the sun, combined, in many cases, with the potations they have been imbibing, their clothes discolored with the dust, and almost all of them either sulky, or venting their ill-humor on their friends. Our party, who half an hour ago were in such good spirits, are now quite the reverse. Mr. and Mrs. Smith are engaged in a not very amicable discussion, and the children are either asleep or crying, and their mother endeavors to silence them by a distribution of boxes on the ear, which, strangely enough, seems to have quite an opposite

effect. Those who can afford to ride are the only persons who enjoy themselves. One party comes tearing down the hill at full speed in a cab, making the women run screaming out of the way, and raising a cloud of dust that blinds everybody. Inside the conveyance are three couples, and three or four gentlemen are distributed on the available places on the roof, smoking cigars, and cutting jokes at the personal appearance of the passers-by. Just as the Smiths are entering London, the evening service of the churches is finished, and the different congregations come pouring out, neatly dressed, and with a quiet, serious air. The Smiths, with dirty faces, dusty clothes, and screaming children, hang down their heads abashed, and sneak home as quickly and quietly as they can, and quite worn out, go to bed with a mental resolution not to seek pleasure for the future in such a laborious manner. It is a curious fact, and one that shows how much better the pleasurable parts of past events, are remembered than the disagreeable, that the Smiths, the very next Sunday, again go to the same place, spend the day in the same manner, and return with the same resolution, which is made only to be broken the next Sunday.

The streets in the mean time continue more or less crowded by the returning population till ten o'clock, when a sensible and remarkably sudden diminution in the numbers takes place. Almost all the families with children are by this time housed, and the warehousemen, shopmen, and shopwomen who live with their employers, disappear as the hour strikes, like so many apparitions. This abstracts at once the gayer part of the throng, including all the patent leather boots, gold (mosaic) headed canes, delicate colored silk gowns, barege shawls, and pretty bonnets, and with these accessories most of the gentlemanlike figures and coquettish ankles which throughout the day had thrown a strong dash of gentility upon the motley assemblage. The great lines of thoroughfare become more and more empty towards eleven, and in the back streets the neighbors who had congregated at the doors in little groups to talk over the events of the day, or to compensate themselves for having passed the Sunday at home by enjoying a look at the returning wanderers, vanish one by one into the interior of their domiciles. "Good night" is heard on all sides, mingled with the shutting of doors, the shooting of bolts, and here and there with softer adieus. By midnight the signs of the holiday are over.

Such are but a few traits of a vast subject, the full treatment of which might fill volumes. Enough, however, must have been done even in these light paragraphs, to indicate the unsatisfactory nature of the tradesman and working-man's Sunday in London; that is, taking these classes generally, and acknowledging many exceptions. At best, a little amusement is obtained, or a brief unbending from tasks which press at all other times. The higher needs of our nature are left entirely ungratified. It may not, I humbly think, be amiss, while congratulating ourselves on the success of the nation generally in the pursuit of wealth, to remember the immense expense in various ways to a vast portion of the people at which that success is secured.

*Hiring out Newspapers for perusal.*—The penalty for this very common and mean offence is £5, by the Act 29, Geo. III., c. 50.—*Atlas*.

From the Christian Observer.

#### THE HUGUENOT EMIGRANTS IN AMERICA.

THE perfidious and sanguinary persecutions of the Huguenots in France verified the ancient adage, that the blood of the martyrs is the seed of the church. Thousands of their fellow-confessors, who shared their sufferings, but escaped with life, found their way to various countries, which offered them an asylum from popish tyranny and cruelty; and by their constancy and piety they edified the faithful, and renovated the zeal of many lukewarm Protestants. They carried with them useful arts wherever they went, and benefited the civil as well as the religious weal of the nations which hospitably received them. Saurin, Basnage and Claude, in Holland, were expatriated Huguenots; Romaine and Romilly, in England, were descendants of expatriated Huguenots; and in what Protestant country were not these victims of papal tyranny to be found? Some fled to the Cape of Good Hope, others to America, and great numbers to England, Holland and Germany. William of Orange manned his ships with them, and in one year raised three regiments from among them, who afterwards fought the battles of England, when he ascended the British throne. Thus France lost many of its bravest warriors, as well as of its most industrious artisans. One Vincent had employed five hundred workmen; the mayors of various towns complained that the emigrants had carried away commerce and manufactures with them; Rouen had lost its fabric of hats; Poitiers of druggets; and the silk trade of France had become located in Spitalfields, London; in which city so great were their numbers, that they had occasion for six churches. Such was the political policy, to say nothing of the wickedness, of religious persecution. In recently visiting Jersey and Guernsey, we found some worthy descendants of these holy confessors, who obtained a welcome refuge in the Channel Islands from the tyranny which oppressed them in the neighboring mainland.

The numbers who suffered from the first persecution till the Edict of Nantes, in 1598, and after the revocation of that edict, cannot be correctly computed. It has been estimated that seventy thousand perished in the massacre on the tide of St. Bartholomew, 1572; and the number of emigrants after the revocation of the Edict of Nantes has been reckoned at half a million. The horrors which ensued upon the revocation of that grant of toleration, furnish some of the blackest pages of human history. Property of every kind was plundered; children were torn from the arms of their parents; churches were profaned and razed to the ground; matrons and young women were abandoned to a licentious soldiery; men were imprisoned, scourged, condemned to the galleys, roasted at slow fires, and wounded with knives and red-hot pincers; faithful pastors were broken on the wheel, and the bodies of the sufferers were thrown naked to the dogs and wolves.

"Here," says the eloquent Saurin, "we saw our persecutors drawing on a sledge the dead bodies of those who had expired on the rack. There, we beheld a false friar tormenting a dying man, who was terrified, on the one hand, with the fears of hell if he should apostatize, and on the other, with the fear of leaving his children without bread if he should continue in the faith; while *yonder* they were tearing children from their parents, while the tender parents were shedding more tears for the loss of their souls than for that of their bodies or lives." The reverend Claude says: "They cast some into large fires, and took them out when they were half roasted. They hanged others with long ropes under the arms, and plunged them several times into wells till they promised to renounce their religion. They stretched them like criminals upon the rack, and poured wine with a funnel down their throats, till being intoxicated they consented to turn Romanists."

But we will not dilate upon these scenes of horror: our present design being chiefly to introduce to our readers the faithful bands of French Protestants who found a shelter in what are now the United States of America, and whose history is not generally known. Dr. Baird has collected some interesting notices upon the subject, of which we shall avail ourselves in the following statement.

"In our American colonies," says Bancroft in his History of the United States, "they were welcome everywhere. The religious sympathies of New England were awakened. Did any arrive in poverty, having barely escaped with life, the towns of Massachusetts contributed liberally to their support, and provided them with lands; others repaired to New York. But a warmer climate was more inviting to the exiles of Languedoc, and South Carolina became the chief resort of the Huguenots. What, though the attempt to emigrate was by the laws of France a felony; in spite of every precaution of the police, five hundred thousand souls escaped from the country. The unfortunate were more wakeful to fly than the ministers of tyranny to restrain.

"We quitted home by night, leaving the soldiers in their beds, and abandoning the house with its furniture," said Judith, the young wife of Pierre Manigault; "we contrived to hide ourselves for ten days at Romans, in Dauphiny, while a search was made for us; but our faithful hostess would not betray us." Nor could they escape to the seaboard, except by a circuitous journey through Germany and Holland, and thence to England, in the depths of winter. "Having embarked at London, we were sadly off. The spotted fever appeared on board, and many died of the disease; among these our aged mother. We touched at Bermuda, where the vessel was seized. Our money was all spent; with great difficulty we procured a passage in another vessel. After our arrival in Carolina, we suffered every kind of evil. In eighteen months, our eldest brother, unaccustomed to the hard labor which we were obliged to undergo, died of a fever. Since our leaving France we had experienced every sort of affliction,—disease, pestilence, famine, poverty, hard labor. I have been six months without tasting bread, working like a slave; and I have passed

three or four years without having it when I wanted it. And yet,' adds the excellent woman in the spirit of grateful resignation, 'God has done great things for us in enabling us to bear up under so many trials.'

"This family was but one of many that found a shelter in Carolina, the general asylum of the Calvinist refugees. Escaping from a land where the profession of their religion was a felony, where their estates were liable to become confiscated in favor of the apostate, where the preaching of their faith was a crime to be expiated on the wheel, where their children might be torn from them to be subjected to their nearest Catholic relation,—the fugitives from Languedoc on the Mediterranean, from Rochelle and Saintonge and Bordeaux, the provinces on the Bay of Biscay, from St. Quentin, Poitiers, and the beautiful valley of Tours, from St. Lo and Dieppe, men who had the virtues of the English Puritans without their bigotry, came to the land to which the tolerant benevolence of Shaftesbury had invited the believer of every creed. From a land that had suffered its king in wanton bigotry to drive half a million of its best citizens into exile, they came to the land which was the hospitable refuge of the oppressed; where superstition and fanaticism, infidelity and faith, cold speculation and animated zeal, were alike admitted without question, and where the fires of religious persecution were never to be kindled. There they obtained an assignment of lands, and soon had tenements; there they might safely make the woods the scene of their devotions, and join the simple incense of their psalms to the melodies of the winds among the ancient groves. Their church was in Charleston; and thither on every Lord's day, gathering from the plantations on the banks of the Cooper, and taking advantage of the ebb and flow of the tide, they might all regularly be seen, the parents with their children, whom no bigot could wrest from them, making their way in light skiffs through scenes so tranquil, that silence was broken only by the rippling of the oars, and the hum of the flourishing village at the confluence of the rivers.

"Other Huguenot emigrants established themselves on the south bank of the Santee, in a region which has since been celebrated for affluence and refined hospitality.

"The United States are full of monuments of the emigrations from France. When the struggle for independence arrived, the son of Judith Manigault intrusted the vast fortune he had acquired to the service of the country that had adopted his mother; the hall in Boston where the eloquence of New England rocked the infant spirit of independence, was the gift of the son of a Huguenot; when the treaty of Paris for the independence of our country was framing, the grandson of a Huguenot, acquainted from childhood with the wrongs of his ancestors, would not allow his jealousies of France to be lulled, and exerted a powerful influence in stretching the boundary of the states to the Mississippi. On our north-eastern frontier state, the name of the oldest college bears witness to the wise liberality of a descendant of the Huguenots. The children of the Calvinists of France have reason to respect the memory of their ancestors."

The emigration of the Huguenots to America, is an interesting event in the history of that country. Even previous to the massacre of St. Bartholo-

mew's day, some of the Protestant leaders, whether from feeling their position to be even then intolerable, or from their anticipations of a still darker futurity, proposed to establish a colony and a mission in Brazil—the mission being the first ever projected by Protestants. The admiral of France, De Coligny, who was afterwards a victim in the St. Bartholomew's massacre, entered warmly into the undertaking, and Calvin urged it on, and selected three excellent ministers, who had been trained under his own eye at Geneva, to accompany the emigrants. The expedition (which set out in 1556) proved peculiarly disastrous. The commander relapsed to the Roman Catholic faith, and having put the three ministers to death, returned to France, leaving the remains of the colony to be massacred by the Portuguese. Nor did better success attend two attempts made by the good admiral to plant colonies in North America, the one in South Carolina, the other in Florida.

From the time of the siege of Rochelle to that of the revocation of the Edict of Nantes, there had been a continual emigration of French Protestants to the English colonies in America, which after the last of these two events was greatly augmented, as is proved by the public acts of those colonies. The first notice of the kind to be found, is an act of the colony of Massachusetts Bay, in 1662, to this effect, "that John Touton, a French doctor and inhabitant of Rochelle, made application to the general court of Massachusetts in behalf of himself and other Protestants, expelled from their habitations on account of their religion, that they might have liberty to live there, which was readily granted them." In 1686, a grant of 11,000 acres was made to another company of French Protestants who had settled at Oxford, in the same colony. In that year, too, a French Protestant church was erected at Boston, which, ten years after, had the Rev. Mr. Daillé for its pastor. A century later, when the French Protestants had ceased to use the French language, and had become merged in other churches, their place of worship fell into the hands of some French Roman Catholic refugees.

In 1666, an act for the naturalization of French Protestants was passed by the legislature of Maryland; acts to the like effect were passed in Virginia in 1671; in the Carolinas in 1696, and in New York in 1703.

New York became an asylum for the Huguenots at a very early date; for even before it was surrendered to England, namely, about 1656, they were so numerous there that the public documents of the colony had to be published in French as well as in English; and in 1708, Smith, the historian of that colony, says, that next to the Dutch they were the most numerous and the wealthiest class of the population. From an early period they had in that city a church, which exists at the present day. Dr. Baird was informed that it has long been attached to the denomination of the



Protestant Episcopal Church, and has a Frenchman for its rector.

New Rochelle, about sixteen miles above the city of New York, on the East River, was settled solely by Huguenots from Rochelle in France, and the French tongue, both in public worship and common speech, was in use even until after the American revolution. There are many of the descendants of French Huguenots in Ulster and Dutchess counties, in the state of New York.

The Rev. Dr. Millar, professor of Church History in the theological seminary at Princeton, New Jersey, had the following interesting facts respecting the early inhabitants of New Rochelle communicated to him: "When the Huguenots first settled in that neighborhood their only place of worship was in the city of New York. They had taken lands on terms that required the utmost exertions of men, women, and children among them to render tillable. They were, therefore, in the habit of working hard till Saturday night, spending the night in trudging down on foot to the city, attending worship twice the next day, and walking home the same night to be ready for work in the morning. Amid all these hardships they wrote to France, to tell what great privileges they enjoyed."

In 1679, Charles II. sent, at his own expense, in two ships, a company of Huguenots to South Carolina, in order that they might there cultivate the vine, the olive, &c., and from that time there was an extensive emigration of French Protestants to the colonies. Collections were made for them in England in the reign of James II., and the English parliament at one time aided them with a grant of £15,000. In 1690, William III. sent a large colony of them to Virginia, in addition to which that colony received three hundred families in 1699, followed successively by two hundred, and afterwards by one hundred families more. In 1752, no fewer than one thousand six hundred foreign Protestants, chiefly French, settled in South Carolina, and above two hundred more in 1764.

In 1733, three hundred and seventy Swiss Protestant families settled in South Carolina under the conduct of Jean Pierre Pury, of Neuchâtel; the British government granting them 40,000 acres of land, and £400 Sterling for every hundred adult emigrants landed in the colony.

In some of the colonies, where an established church was supported by a tax, special acts were passed for relieving French Protestants from assessment, and for granting them liberty of worship. Thus, in 1700, the colony of Virginia enacted as follows: "Whereas a considerable number of French Protestant refugees have been lately imported into this his majesty's colony and dominion, several of which refugees have seated themselves above the fall of James' river, at or near the place commonly called and known by the name of the Monacan towns, &c., the said settlement be erected into a parish, not liable to other parochial as-

sessments." This exemption was to last for seven years, and was afterwards renewed for seven more.

These Huguenots, whenever sufficiently numerous, at first used their own language in public worship, and had churches of their own, until, with one or two exceptions, and those only for a time, they fell into either Presbyterian or Episcopal denominations. This must be taken as a general statement, for their descendants may now be found in almost all communions, as well as in all parts of the United States. Many members, too, of the Dutch reformed churches are descended from Huguenots, who had first taken refuge in Holland, and afterwards emigrated to America.

As the entire population of the American colonies amounted only to about two hundred thousand souls in 1701, more than forty years after the commencement of the Huguenot emigrations, a large proportion of that number must have been French Protestants, and Huguenot blood accordingly must be extensively diffused among the citizens of the United States at the present day. So large an accession of people, whose very presence in America proved the consistency of their religious character, and who were generally distinguished by simple and sincere piety, must have been a great blessing to the land of their adoption, especially to the southern states, where it was most required. Their coming to America, on the other hand, has been blessed, under God, to them and their descendants. Many of the first families in New York, Maryland, Virginia, and the Carolinas, as well as other states, are to be found among the latter, as may be seen in many cases from their names, although these have often been lost through intermarriages, or can with difficulty be recognized, owing to their being spelt as they are pronounced by Anglo-Americans. Some of the most eminent persons that have ever adorned the United States were of Huguenot descent. Such were no fewer than three out of the seven presidents of Congress, and in a sense of the whole nation, during the war of the revolution, namely, John Jay, Henry Laurens, and Elias Boudinot,—all excellent men. "No man in America," says Dr. Hawks, in his History of the Episcopal Church in Virginia, "need blush to own himself one of their descendants; for observation has more than once been made, and it is believed to be true, that among their descendants the instances have been rare indeed, of individuals who have been arraigned for crime before the courts of the country."

IMPORTATION OF NEW ZEALAND WOOL.—An importation of New Zealand Wool, the first, we believe, which has reached England, realized from 1s. 6d. to 1s. 7d. per lb. It is hoped that this is the beginning of an extensive trade in wool, an article which New Zealand is in so many respects so well suited to afford. Some specimens of fancy and plain wools imported from the island have been very generally admired and approved of.